



The World's Most Efficient Air-To-Water Heat Pumps

Ultra-Efficient R32 EVI CX65X Air-To-Water Heat Pump Optimized For Cold Climate Heating

3.7 Tons Cooling / 5.5 Tons Heating

IPLV Cooling 45,150 BTU EER 23.03 (IPLV)

Heating 66,360 BTU COP 4.84 @W95/A47

EN14825 Heating Seasonal Average SCOP 5.36

Operation up to 149 °F



R32 Ultra High Efficiency CX65 EVI Heat Pump

Building on the success of the award-winning CX34, the CX65 has record-setting heating and cooling efficiency while using R32, the most eco-friendly refrigerant available in USA.



The CX65 obtains its ultra high efficiency using our award-winning technologies in a new, larger system optimized for increased heating performance while still delivering extreme cooling efficiency. The CX65 uses a Mitsubishi EVI DC inverter compressor, a DC Inverter water pump (both are variable speed) controlled together with a DC inverter variable speed fan to achieve the best possible balance of performance, optimized water flow rate, compressor speed, and energy use.

About Our World's Record Official Efficiency Ratings: SCOP 5.36 is certified by SGS under EN14825 and represents the heating Seasonal Coefficient of Performance (SCOP) using European test conditions and BIN data, which are highly similar to USA DOE Climate Zone 5A conditions and BIN data. USA Zone 5A, characterized as a humid cold climate, includes cities like Hartford CT, Chicago IL, Manchester NH, and Pittsburgh, PA. All cooling data is certified under AHRI 550/590.

Dynamic Humidity Control (DHC)

The included Chiltrix Psychrologix™ control offers DHC (Dynamic Humidity Control) to maximize comfort and performance and allow the unit to operate well above its published ratings at times when humidity allows. DHC control provides dynamic loop/coil temperature reset based on indoor humidity and temperature.

The CX65 system capacity is fully dynamic and can operate between 27% and 100% of its rated capacity, as needed. This means the system is always the right size for changing conditions and avoids the on/off cycling of traditional systems.

UL 60335-2-40 / UL 60335-1-40

CSA C22.2 / SGS



Supports: Radiant, Ductless Fan Coils, Ducted Air Handlers & Domestic Hot Water in Any Combo



All Chiltrix wall, floor and ceiling fan coil units use nearly silent DC Inverter fan motors. Inverter ducted air handlers are available.

Heating, Cooling, Domestic Hot Water

Use any or all in the same application with World's Record efficiency.

Radiant, Ductless Fan Coils, Ducted AHU

Use any or all in the same application.

Radiant Cooling

Ask us about our radiant cooling dew point control options. In many applications, a radiant heating system can also be used for cooling.

Max Temperature 149 °F

If needed, the CX65 can support baseboard heaters with up to 149F supply outlet temperatures.

Domestic Hot Water

Enjoy the highest rated efficiency rating of any US DOE Certified Heat Pump Water Heating System, and get up to UEF 4.95 with a first-hour rating of up to 133 gallons.

Radiant, Boiler & Hydronic Integration

Can serve as low-cost primary or sole heat when used with or in replacement of an existing boiler heating system. Perfect for radiant floor heating, ducted or ductless. Dramatically reduces heating costs for users of electric, propane or oil-fired boiler systems.

Dynamic Heating Performance

The CX65 compressor provides heating down to outdoor temperatures as low as -22 °F. And the optional V18 variable backup heater can be directly integrated for precise dynamic control and the highest efficiency ever achieved by an electric hydronic backup heater.

Images are representative only

All Specifications Subject To Change



Ultra-Efficient R32 EVI

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IPLV Cooling 45,150 BTU EER 23.03

Heating Seasonal Average COP 5.36 (SCOP)

Heating 66,360 BTU COP 4.84 @W95/A47

Heating 62,300 BTU COP 3.87 @W95/A32

Heating 53,840 BTU COP 2.53 @W95/A5

Heating 64,210 BTU COP 4.29 @W105/A47

Heating 60,150 BTU COP 3.47 @W105/A32

Heating 49,880 BTU COP 2.34 @W105/A5

Heating 60,970 BTU COP 3.62 @W120/A47

Heating 56,910 BTU COP 2.98 @W120/A32

Heating 43,840 BTU COP 2.06 @W120/A5

CEC California Energy Commission

Cooling 45,280 BTU EER 10.83 IPLV 22.83

Heating W120F A47F 60,970 BTU COP 4.29

Heating W120F A17F 52,240 BTU COP 2.43

Anti-Corrosion Technology to protect against salt air or air pollution is incorporated into all Chiltrix outdoor units.

Includes special coil, hermetically sealed compressor and fan motor.

There is no other ATW heat pump like the CX65X available on the market at any price. Contact us to learn more about designing an air-to-water heat pump chiller system for your home, commercial location, or server room. We can also help you integrate our system with an existing system, retrofit replacement, integration with solar, or with an existing boiler or hydronic heating system with baseboard radiator support up to 149 °F.

Flexible Indoor Options – Any Combo:

You can use up to 12 or more ductless fan coil units of any type including wall mount, ceiling, floor standing, etc. with a single Chiltrix air-to-water heat pump chiller. You can also use (AHU) ducted fan coil air handlers for a central (forced air) heating & air conditioning system, use it with a radiant floor or radiant panels, or with concealed ceiling fan coils, mini-ducts, or use any combination of these. Domestic water heating may be added to any of the above.

UL 60335-2-40 / UL 60335-1-40

CSA C22.2 / SGS



The CX65 is Stackable up to 3 units, up to 199,000 BTU Heating / 135,000 BTU Cooling.

Supports: Radiant, Ductless Fan Coils, Ducted Air Handlers & Domestic Hot Water: Any or All, in Any Combination.

Heating	47F / 95F	66,360	4.84
	32F / 95F	62,300	3.87
	17F / 95F	59,300	2.86
SCOP	EN14511	35c	5.36
SCOP	EN14511	55c	3.88
Cooling	IPLV EER (W 44.6F)	45,150	23.03
	NPLV EER (W 55.4F)	54,430	30.61
	EER (A 95F W44)	45,150	10.87
Compressor	EVI Dual Inverter Rotary	Mitsubishi	
Fan Motors	Dual Variable Speed	DC Inverter	
Power	208-240V/50-60Hz		
RLA / MCA / Max Allowed Fuse	30a/37a/60a		
Max Water Temperature (F)	149 °F		
Lowest Water Temp - Cooling (w/ Glycol)	32 °F		
Operating Range (F)	-22 °F - 122 °F		
Refrigerant Circuit	Refrigerant	R32	
	DC Inverter Compressor	Dual Rotary EVI	
	Heat Exchanger 1	Cu/Al Anti-Corrosion	
	Heat Exchanger 2,3	Stainless 316L BPHE	
	Refrigerant Weight	2.7 Kg./ 95 Oz.	
Water Circuit	DC Variable Speed Pump	Grundfos	
	Water Connections	1.25" NPT	
	Water flow (Max)	13.6 GPM	
	Max / Suggested Pressure	90 PSI / 20 PSI	
Unit Dimensions	WxHxD (mm)	43 7/8" *50 3/4" *16 3/4"	
Net weight	(Lbs.)	336 Lbs.	
Noise level	dB(A)	52	

CX65 and CX65X

The CX65 is has a standard variable speed pump, non-metal front grill. The CX65X adds a stainless-steel variable speed pump, and adds an aluminum front grill (shown in pic). The critical components we use to build our heat pumps are sourced from the world's top manufacturers and include heat exchangers from Sweden, German pumps, American valves, electronics from Japan, controls from USA, and a compressor from Mitsubishi.

US Patent 12,078,378

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