

**Versatec 700**  
Commercial / 10 & 15 Ton  
Water Source/Ground Source Heat Pump



**Versatec 700**

## VERSATEC 700 FOR COMMERCIAL APPLICATIONS

The WaterFurnace line of commercial variable capacity water source and geothermal systems offers the industry the absolute best in efficiency while maintaining the small cabinet your building needs. The 10 and 15 ton commercial variable capacity units feature Aurora Advanced Controls with true energy, refrigeration, and optional performance monitoring as well as the optional Aurora UPC DDC Controls to integrate into building automation systems. With a capacity range of 25-100%, the WaterFurnace variable capacity system will scale its output to what your building actually needs, maximizing occupant comfort levels.

### KEY FEATURES

**MODEL SIZES:** The 120 and 180 units are available in both horizontal and vertical cabinets as well as with bottomflow configurations for installation in virtually any application.

**WIDE CAPACITY RANGE:** The variable speed unit operates at the speed it needs to condition the space and varies itself between 25% and 100% capacity resulting in the most efficient and comfortable conditioning possible.

**VARIABLE CAPACITY COMPRESSOR:** Copeland variable speed scroll compressors and drives are featured and provide the utmost in efficiency and capacity modulation.

**INTEGRATED EC DIRECT DRIVE FAN MOTORS:** Models 120-180 feature an EC Plenum Fan Motor and Blower with an integrated communicating variable speed EC fan motor with a backward curve impeller providing efficient airflow through 2" of external static footprint for quiet operation and amazing static capability.

**CABINET:** The cabinets utilize a compact footprint and are constructed of heavy gauge environmentally responsible galvanized steel for maximum corrosion resistance. Units are available with a durable white powder coat finish or unpainted. All interior surfaces are lined with 1/2" thick, foil lined acoustic type fiber insulation, applied in a manner that prevents the introduction of glass fibers into the air stream.

**FILTER RACK/RAIL:** Redesigned filter rack includes a standard 1" filter rail with a MERV 4 filter. Options include a 1" or 2" four-sided filter rack suitable for ducted applications, or a 2" filter rail with MERV 13 filters for non-ducted applications.

**AURORA ADVANCED CONTROLS :** The advanced controls provide two-way communication among components as well as true energy monitoring and optional performance and refrigerant monitoring kit compatibility. The Aurora controls system is a complete commercial comfort platform that can bring all aspects of the HVAC system into one cohesive module network.

**AURORA UPC DDC CONTROLS:** A wide variety of points are covered including configurations, sensors, airflow, freeze protection, and even economizer enthalpy controls.

**WATER SIDE ECONOMIZER:** The optional water side economizer circulates water already in the system through coils to provide heating and cooling for the building. It provides an amazing level of performance and efficiency to a system that's already one of the best in the industry.

**COAXIAL HEAT EXCHANGER:** Dual oversized convoluted heat exchangers with copper inner tube (optional cupronickel) and steel outer tube allow for maximum heat transfer at normal and low water flow rates. This minimizes pressure drop and enhances freeze protection.

**MODULATING HOT GAS REHEAT:** By utilizing modulating hot gas reheat, the valve provides consistent comfort by removing moisture from the air without over cooling the space. The hot gas bypass option is designed to limit the minimum evaporating pressure in the cooling mode to prevent the air coil from icing.

**ELECTRONIC EXPANSION VALVE (EEV):** The EEV provides optimal refrigerant flow in the variable capacity system ensuring high efficiency and compressor reliability.

## VS ECM Motors

AHRI/ASHRAE/ISO 13256-1  
English (IP) Units

Model	Capacity Modulation	Flow Rate		ESP	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
					Cooling EWT 86°F		Heating EWT 68°F		Cooling EWT 59°F		Heating EWT 50°F		Cooling Brine Full Load 77°F Part Load 68°F		Heating Brine Full Load 32°F Part Load 41°F	
		gpm	cfm	inH2O	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
120	Full	30	4000	1.0	125,000	14.5	140,000	4.6	145,000	22.0	115,000	4.0	132,000	16.5	96,000	3.5
	Part	20	1500	1.0	40,000	22.0	40,000	6.0	50,000	50.0	25,000	5.0	45,000	40.0	24,000	4.5
180	Full	45	5600	1.0	175,000	13.2	200,000	4.3	200,000	18.0	185,000	4.0	180,000	14.2	145,000	3.4
	Part	20	2400	0.5	50,000	22.0	50,000	6.8	60,000	45.0	40,000	5.0	60,000	33.0	34,000	4.3

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature  
Heating capacities based upon 68°F DB, 59°F WB entering air temperature  
All ratings based upon 208V operation

10/29/17

## Dimensional Data

Vertical Models	Width	Depth	Height
120	34.0"	36.3"	72.5"
180	34.0"	46.3"	72.5"

Horizontal Models	Width	Depth	Height
120	34.0"	89.0"	29.9"
180	34.0"	110.0"	29.9"

## Electrical Table

### ECM Motor

Model	Rated Voltage	Voltage Min/Max	Compressor			Blower Motor FLA	Total Unit LA	Min Circ Amp	Max Fuse/HACR Breaker
			MCC**	RLA	LRA*				
120	208-230/60/3	187/253	56.0	33.1	60.0	9.2	42.3	50.6	80
	460/60/3	414/506	30.0	17.7	35.0	6.8	24.5	28.9	45
180	208-230/60/3	187/253	84.0	49.6	100.0	9.2	58.8	71.2	110
	460/60/3	414/506	60.0	60.0	60.0	6.8	47.1	56.7	80

HACR circuit breaker in USA only

\* - Based on AC input current protection to compressor drive.

\*\* Max Continuous Input Current

