



# **AIR SOURCE HEAT PUMP**

#### ALL-ELECTRIC HEATING AND COOLING SOLUTION

Valent's air source heat pump is available in capacities ranging from 5 to 30 tons. This heating and cooling technology is typically used when natural gas heating is unavailable or prohibited by local code. In colder climates, an air source heat pump may be paired with a secondary heat source such as gas or an electric heater.

## ONE SYSTEM TO HEAT AND COOL

- An air source heat pump is designed to transfer energy between the ambient air and supply air stream, providing both cooling and heating for the space it serves
- In cooling mode, the air stream coil absorbs heat energy from the supply air and rejects this heat to the outdoor air. While the air stream coil provides cool air, the outdoor coil rejects heat to the ambient air.
- In heating mode, a reversing valve allows the air stream coil to heat the supply air where the outdoor coil absorbs heat from the ambient air and the air stream coil rejects this heat to the supply air.
- Utilizing the refrigeration system for the first stage of heating can be more efficient than electric heat, per kW consumed

### BROAD RANGE OF APPLICATIONS

COOLING MODE CYCLE

Air source heat pumps use a reversing valve to reverse the flow of refrigerant and pull heat from the ambient outdoor air.

- Air source heat pumps can be used in all climates
- Available in 100% outdoor air or partial recirculation applications
- Valent's offering meets or exceeds current DOE standards
- Valent does not lock out ASHP heating operation until 0°F which maximizes compressor run time and reduces the need for supplemental heat

## QUICK INFORMATION GUIDE

V	alent Model Availability	Valent VX, VXE, or VXC 112 and 212 cabinets
C	ooling Capacity	5 to 30 tons
C	ompressor	Inverter scroll
Α	irflow Configurations	100% outdoor air or partial recirculation
Α	SHP Heating Lockout	0°F
C	ondenser Fan	Lead EC or All EC
S	upplemental Heat Options	Indirect gas, electric, or hot water
C	oil Frost Protection	As needed, based on refrigeration suction temperature, outside air temperature, and/or outside humidity

See the Valent VX IOM and Controls IOM Sequence of Operation for more information.

## LEARN MORE ABOUT VALENT

- www.valentair.com
- Download the <u>Product Datasheet</u> to see Valent's range of options.
- Contact your Valent Representative.



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