ENVISION

WaterFurnace Envision 7-25 ton units are an exceptional choice for large zones in commercial and institutional applications. These units are available in both an NL group for water source heat pump applications, and an NX group for extended range geothermal applications. Available in 3 horizontal sizes and 7 vertical sizes, Envision units provide the user with high efficiency, excellent performance, flexibility and reliability. Envision 7-25 ton units utilize R-410A refrigerant. WaterFurnace Aurora communicating controls come standard with the option of connecting to building automation systems. Vertical units can be ordered in left or right-hand return air, top or side discharge. Horizontal units are available with left or right-hand return, side or end discharge. Heavy gauge metal cabinets add durability to the system. Vertical units are painted with a long lasting white powder coat finish. Horizontal units are unpainted. Envision units are performance-certified to ARI ISO 13256-1 and are ETL listed.

KEY FEATURES

CABINET: Constructed of galvanized steel for maximum corrosion resistance. Vertical units are white powder coated. Interior surfaces are lined with insulation that prevents glass fibers getting into the air stream. Multiple knockouts in various sizes facilitate power and low voltage wiring. Multiple access panels for ease of service.

SCROLL COMPRESSORS: Includes two high efficiency Copeland Scroll compressors designed for heat pump operation. Dual level vibration system and internal overload protection.

COAXIAL HEAT EXCHANGERS: Dual oversized convoluted heat exchangers with copper inner tube (optional cupronickel) and steel outer tube for maximum heat transfer at normal and low water flow rates to minimize pressure drop and enhance freeze protection.

ALUMINUM AIR COIL: An aluminum air coil is featured in Envision 7-25 ton units to provide exceptional durability and high efficiencies. Added protection is also available with an optional AlumiSeal™ coating.

REFRIGERANT CIRCUIT: Envision units utilize R-410A refrigerant in two sealed circuits. Metering is accomplished with a bi-flow thermostatic expansion valve for optimum refrigerant flow without troublesome check valves. Four-way solenoid activated reversing valve faults to heating and is “cool brazed” at the factory.

CONTROLS: Aurora microprocessor control is standard. Optional Aurora Universal Protocol Converter (UPC) control is available featuring N2, LonWorks, and BACnet compatibility.

FILTER RACK: Units include a factory-installed 2” wide filter bracket. Filter removal can be done from either side. Optional MERV11 filters available.

BLOWER MOTOR: Fan is belt driven, double width, double inlet forward curved with dynamically balanced wheel. Motors are permanently lubricated with thermal overload protection. Drive includes fixed pitch blower sheave and variable pitch motor sheave sized for 115% of fan brake horsepower.

Piping: Supply and return water connections are copper 1 1/4” or 2” NPT fittings. All internal piping including coaxial heat exchanger is insulated to prevent condensation. Low temperature soldered to prevent misshaping or weakening.

ADDITIONAL FEATURES: All units are computer-run tested. Horizontal units include base rails and hanger brackets with rubber isolation grommets. Drain pan constructed of corrosion and mold resistant plastic, sloped in four directions to facilitate condensate removal.

Continuing our long history of innovation, efficiency, quality and reliability for commercial products.
**ENVISION SERIES XL VERTICAL 7 to 25 Tons**

Vertical units are available in Left or Right Return, Side or Top Discharge

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>080 - 120</td>
<td>61.3”</td>
<td>34.0”</td>
<td>58.0”</td>
</tr>
<tr>
<td>160 - 300</td>
<td>88.1”</td>
<td>34.0”</td>
<td>68.0”</td>
</tr>
</tbody>
</table>

**ENVISION SERIES XL HORIZONTAL 7 to 10 Tons**

Horizontal units are available in Left or Right Return, Side or End Discharge

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>080 - 120</td>
<td>89.0”</td>
<td>38.0”</td>
<td>23.8”</td>
</tr>
</tbody>
</table>
## AHRI/ISO 13256-1 PERFORMANCE RATINGS

### Belt Drive Motor

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow Rate</th>
<th>Water Loop Heat Pump</th>
<th>Ground Water Heat Pump</th>
<th>Ground Loop Heat Pump</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cooling EWT 86°F</td>
<td>Heating EWT 68°F</td>
<td>Cooling EWT 59°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity Btu/h</td>
<td>EER Btu/h/W</td>
<td>Capacity Btu/h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>73,000</td>
<td>15.5</td>
<td>79,000</td>
</tr>
<tr>
<td>NLH080</td>
<td>22.0</td>
<td>77,700</td>
<td>4.7</td>
<td>22.5</td>
</tr>
<tr>
<td>NLH095</td>
<td>24.0</td>
<td>85,500</td>
<td>15.6</td>
<td>95,000</td>
</tr>
<tr>
<td>NLH120</td>
<td>28.0</td>
<td>91,000</td>
<td>4.8</td>
<td>90,000</td>
</tr>
<tr>
<td>NLV360</td>
<td>22.0</td>
<td>76,000</td>
<td>16.5</td>
<td>85,000</td>
</tr>
<tr>
<td>NLV95</td>
<td>24.0</td>
<td>113,000</td>
<td>13.8</td>
<td>129,000</td>
</tr>
<tr>
<td>NLV120</td>
<td>28.0</td>
<td>140,600</td>
<td>4.6</td>
<td>115,000</td>
</tr>
<tr>
<td>NLV160*</td>
<td>35.0</td>
<td>150,000</td>
<td>5.1</td>
<td>150,000</td>
</tr>
<tr>
<td>NLV180*</td>
<td>45.0</td>
<td>190,000</td>
<td>5.0</td>
<td>190,000</td>
</tr>
<tr>
<td>NLV240*</td>
<td>60.0</td>
<td>296,000</td>
<td>5.2</td>
<td>296,000</td>
</tr>
<tr>
<td>NLV300*</td>
<td>75.0</td>
<td>353,000</td>
<td>5.4</td>
<td>353,000</td>
</tr>
</tbody>
</table>

### Capacity

- **Btu/h:** Units of energy used to describe heat pump capacity.
- **EER:** Efficiency Ratio indicating the energy efficiency of the heat pump.
- **COP:** Coefficient of Performance showing how efficiently the heat pump uses electricity.

### Additional Information

- All ratings based upon 208V operation.
- Ratings for models NLV/NXV160-300 are outside the scope of the AHRI Water to Air/Brine to Air Heat Pumps Certification Program.

### Physical Characteristics

<table>
<thead>
<tr>
<th>Model</th>
<th>Horizontal</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>080</td>
<td>095</td>
</tr>
<tr>
<td>Compressor (2 each)</td>
<td>Copeland Scroll</td>
<td>Copeland Scroll</td>
</tr>
<tr>
<td>Factory Charge R410A, oz (kg) (per circuit)</td>
<td>74 (2.10)</td>
<td>84 (2.38)</td>
</tr>
<tr>
<td>PSC Fan Motor &amp; Blower</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan Motor- hp [W]</td>
<td>2.0 (1492)</td>
<td>3.0 (2238)</td>
</tr>
<tr>
<td>Blower Wheel Size (Dia x W), in. [mm]</td>
<td>12 x 12 (305 x 305)</td>
<td>15 x 11 (381 x 280)</td>
</tr>
<tr>
<td>HWG Connection Size - FPT - in. [mm]</td>
<td>11/4 [31.75]</td>
<td>11/4 [31.75]</td>
</tr>
<tr>
<td>Coax &amp; Water Piping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Connections Size - FPT - in. [mm]</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Air Coil &amp; Filters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Coil Dimensions (H x W), in. [mm]</td>
<td>20 x 35 (508 x 889)</td>
<td>28 x 26 (711 x 635)</td>
</tr>
<tr>
<td>Air Coil Total Face Area, ft² [m²]</td>
<td>9.74 [0.91]</td>
<td>11.1 [1.03]</td>
</tr>
<tr>
<td>Air Coil Tube Size, in. [mm]</td>
<td>3/8 (9.52)</td>
<td>3/8 (9.52)</td>
</tr>
<tr>
<td>Air Coil Number of rows</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Filter Standard - 2&quot; [50.8], in. [mm]</td>
<td>20 x 20 (508 x 508)</td>
<td>28 x 36 (711 x 914)</td>
</tr>
<tr>
<td>Weight - Operating, lb [kg]</td>
<td>700 [318]</td>
<td>843 [382]</td>
</tr>
<tr>
<td>Weight - Packaged, lb [kg]</td>
<td>690 [315]</td>
<td>830 [376]</td>
</tr>
</tbody>
</table>

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