



# Enfinity™ Water Source Heat Pumps



Large capacity horizontal  
ceiling-mounted and  
vertical-floor models



Models WLVC/WLVW  
Sizes 072 – 290 (6 - 25 tons)

Models WCCH/WCCW  
Sizes 072 – 120 (6 - 10 tons)

# Cost savings through design, installation and operation



Daikin Applied large capacity water source heat pump units are ideal for large commercial or industrial spaces. Vertical units—used in small equipment rooms or floor-by-floor installations, and horizontal units—used in long hallways or corridors, are key to extending the water source heat pump concept to larger core areas of a building.

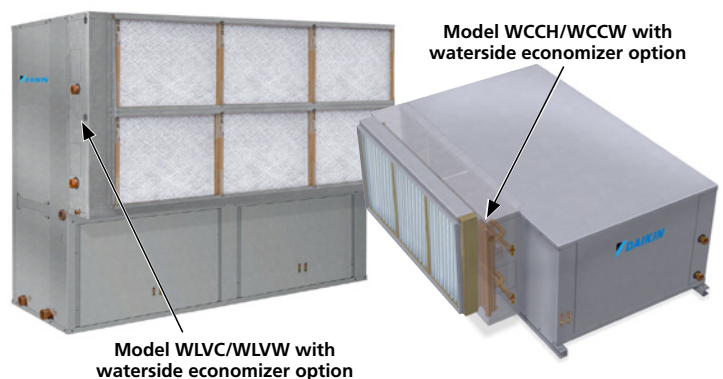
Building owners and engineers can capitalize on the simplified design of both vertical and horizontal units, which share similar water piping, condensate piping, and electrical connections that minimize installation costs while maximizing building space.

Building occupants will appreciate the extremely quiet operation that these units provide. Thick, dual-density fiberglass or optional closed cell insulation is incorporated into the cabinetry and framework design that aids in lessening acoustic noise. To further minimize sound levels, dual compressor units are designed with vibration isolators.

With a wide selection of cost-effective, energy-saving options to choose from, large capacity vertical and horizontal units will provide years of cost-savings, in addition to improved comfort, exceptionally easy service, and reliable operation.

## Beneficial options

- The hot gas reheat coil option is an accurate cost-effective method of dehumidification, where maintaining low humidity is crucial in a space
- The waterside economizer option reduces energy consumption by limiting mechanical cooling and uses loop water temperatures favorable for cooling the space, which conserves energy and reduces operating costs
- The advanced MicroTech III controls option provides the flexibility of standalone operation, or to interface with the building automation system using a LonWORKS or BACnet communication module. Thermostat and sensor options are also available

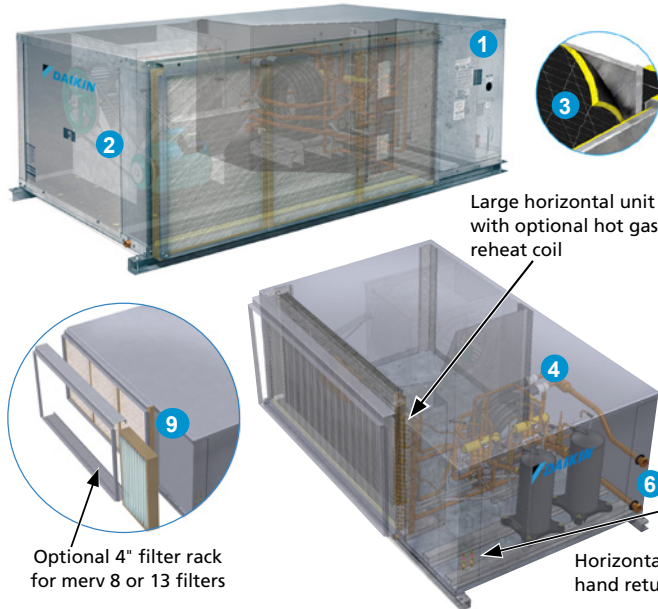


# Value-added features

## Horizontal unit overall dimensions

### sizes 072-120:

78"l x 44"w x 29"h (add 2" to height for hanger bracket)



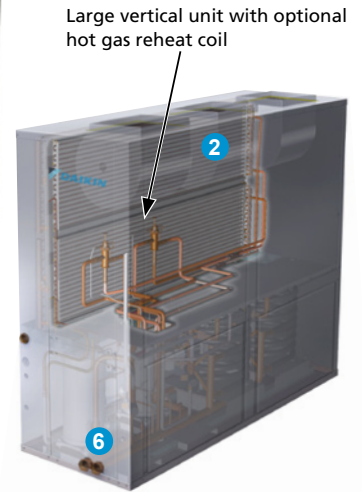
## Vertical unit overall dimensions

### sizes 072-120:

54<sup>5</sup>/<sub>8</sub>"w x 55<sup>3</sup>/<sub>4</sub>"h x 28"d

### sizes 180-290:

80<sup>3</sup>/<sub>8</sub>"w x 67"h x 30"d



### 1 Cabinet

- Robust heavy gauge G-60 galvanized steel for long term equipment protection and superior sound attenuation

### 2 Fan section

- A forward curved, DWDI fan, solid steel shaft mounted in ball bearings. Motor is three phase, open-drip proof (ODP) type with variable pitch sheave and adjustable base

### 3 Insulation

- All interior framework and panels are lined with 1/2" thick, 1 1/2 lb. dual-density fiberglass insulation
- Optional closed-cell foam insulation for superior IAQ

### 4 Refrigerant circuit

- All units have a dual refrigerant circuit with scroll compressors, thermal expansion valve, coaxial heat exchanger, finned tube air side coil, reversing valve and service valves

### 5 Service valves connections

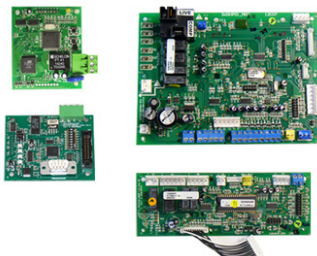
- Four service valves – one on the low side and one on the high side of refrigeration circuit – for charging and servicing. All valves are 7/16" SAE fittings

### 6 External pipe connections

- Supply and return pipe connections located outside the cabinet make pipe connections easy without removing access panels

### 7 MicroTech® III controls

- Designed for flexibility, the control board is used in standalone applications in conjunction with the I/O expansion module for control of the second refrigerant circuit.
- A separate LONWORKS® or BACnet® communication module can be easily snapped onto the board to allow communication with a building automation system.
- Two-stage heating/cooling, 7-day programmable or non-programmable wall-mounted thermostat field-installed option.
- Sensors available for building automation system applications



- **Electrical** - The control enclosure includes fan relay, compressor relays, 24-volt control transformer, lockout circuits and control circuit board

### 8 LED annunciators

- Two sets of external LED status lights display fault conditions to provide easy troubleshooting and diagnosis, visible without removing access panel

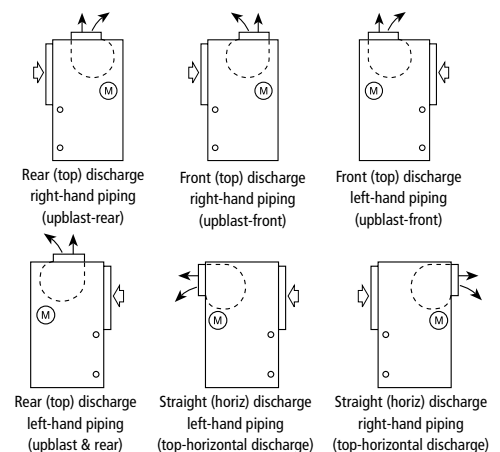
### 9 Filters – horizontal units

- Standard 2" factory-installed filter rack with 2" disposable filters. Filter rack outfitted with duct collar
- Optional 4" filter rack for Merv 8 or 13 filters

### Vertical units

- Standard 1" factory-installed filter rack with 1" disposable filter. Optional 2" filter rack with duct collar for field installation
- Optional 2" filter rack for Merv 8 or 4" filter rack for Merv 13

### Vertical unit configurations



## AHRI performance data (rated in accordance with AHRI/ASHRAE/ISO 13256-1)

| Water Loop |            |                |                        |                                      | Cooling<br>EWT 86°F |      | Heating<br>EWT 68°F |     |
|------------|------------|----------------|------------------------|--------------------------------------|---------------------|------|---------------------|-----|
| Unit Size  | Unit Model | Airflow<br>CFM | Fluid Flow Rate<br>GPM | Voltages                             | Capacity<br>Btuh/hr | EER  | Capacity<br>Btuh/hr | COP |
| 072        | Horizontal | 2400           | 20.1                   | 208/230-60-3<br>460-60-3             | 80,000              | 15.5 | 83,000              | 4.6 |
|            | Vertical   | 2300           | 18.5                   | 575-60-3*                            | 72,800              | 13.1 | 88,500              | 4.6 |
| 096        | Horizontal | 3000           | 23.6                   | 208/230-60-3<br>460-60-3             | 94,900              | 15.3 | 100,700             | 4.6 |
|            | Vertical   | 3000           | 22.2                   | 575-60-3                             | 86,500              | 13.0 | 100,800             | 4.7 |
| 120        | Horizontal | 4000           | 30.1                   | 208/230-60-3<br>460-60-3             | 123,000             | 15.0 | 136,000             | 4.9 |
|            | Vertical   | 4000           | 30.0                   | 575-60-3                             | 119,700             | 14.0 | 150,200             | 5.3 |
| 180        | Vertical   | 6000           | 46.0                   | 208/230-60-3<br>460-60-3<br>575-60-3 | 189,200             | 14.9 | 209,800             | 4.9 |
| 215        | Vertical   | 7200           | 54.0                   | 208/230-60-3<br>460-60-3<br>575-60-3 | 220,800             | 14.2 | 254,800             | 4.9 |
| 290        | Vertical   | 9700           | 80.0                   | 208/230-60-3<br>460-60-3<br>575-60-3 | 308,800             | 11.0 | 422,100             | 4.1 |

- Cooling capacity is based on 80.6°F db, 66.2°F wb (27/19°C) EAT and 86°F (30°C) EWT.
- Heating capacity is based on 68°F db, 59.0°F wb (20/15°C) EAT and 68°F (20°C) EWT.

| Ground Loop |            |                |                        |                                      | Cooling<br>EWT 77°F |      | Heating<br>EWT 32°F |     |
|-------------|------------|----------------|------------------------|--------------------------------------|---------------------|------|---------------------|-----|
| Unit Size   | Unit Type  | Airflow<br>CFM | Fluid Flow Rate<br>GPM | Voltages                             | Capacity<br>Btuh/hr | EER  | Capacity<br>Btuh/hr | COP |
| 072         | Horizontal | 2400           | 20.1                   | 208/230-60-3<br>460-60-3             | 80,100              | 17.1 | 58,700              | 3.8 |
|             | Vertical   | 2300           | 18.5                   | 575-60-3*                            | 74,500              | 14.6 | 59,100              | 3.4 |
| 096         | Horizontal | 3000           | 23.6                   | 208/230-60-3<br>460-60-3             | 97,300              | 17.1 | 70,800              | 3.6 |
|             | Vertical   | 3000           | 22.2                   | 575-60-3                             | 89,200              | 14.6 | 69,700              | 3.6 |
| 120         | Horizontal | 4000           | 30.0                   | 208/230-60-3<br>460-60-3             | 125,800             | 16.7 | 94,100              | 3.9 |
|             | Vertical   | 4000           | 30.0                   | 575-60-3                             | 123,200             | 15.9 | 98,000              | 3.9 |
| 180         | Vertical   | 6000           | 46.0                   | 208/230-60-3<br>460-60-3<br>575-60-3 | 191,200             | 16.1 | 132,000             | 3.6 |
| 215         | Vertical   | 7200           | 54.0                   | 208/230-60-3<br>460-60-3<br>575-60-3 | 229,200             | 16.3 | 147,600             | 3.7 |
| 290         | Vertical   | 9700           | 80.0                   | 208/230-60-3<br>460-60-3<br>575-60-3 | 322,400             | 12.4 | 260,700             | 3.3 |

- Cooling capacity is based on 80.6°F db, 66.2°F wb (27/19°C) EAT and 77°F (25°C) EWT at full load.
  - Heating capacity is based on 68°F db, 59.0°F wb (20/15°C) EAT and 32°F (0°C) EWT at full load.
- \* 575-60-3 voltage not available in vertical unit size 072.

### Focused on a sustainable future

Daikin Applied is committed to sustainable practices as part of our corporate culture. We believe it is the right thing to do for our customers, our community, the environment and ourselves. As a global leader in HVAC technology, Daikin Applied has a unique opportunity to make a difference in sustainable initiatives and to continue to lead the industry in environmental solutions.



For more information about our complete line of water source heat pumps, contact your local Daikin Applied sales office or visit [www.DaikinApplied.com](http://www.DaikinApplied.com) to find an office near you.

