Enfinity® Water Source Heat Pumps

Small capacity horizontal ceiling-mounted models

Models WCCH/WCCW

Sizes 007 – 070 (½ - 6 tons)

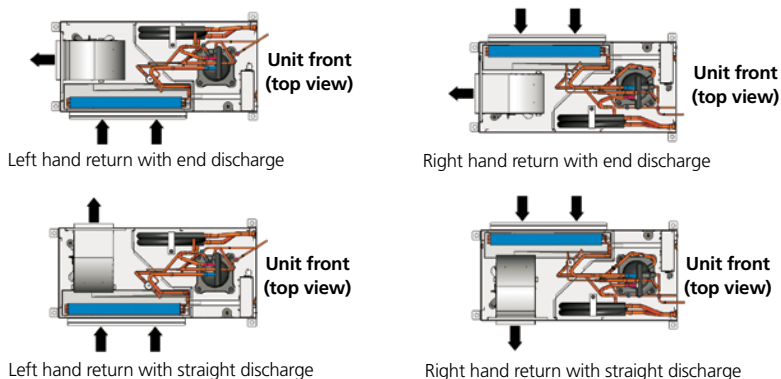# Cost savings through design, installation and operation

Daikin Enfinity small capacity horizontal water source heat pumps with EC motors incorporate the best of our past and present. Enfinity's design features and wide variety of factory-installed options make them ideally suited for use in multi-floor apartment buildings, office buildings, hotels and nursing homes, as well as in limited space applications often associated with new construction or replacement projects.

Enfinity units are highly-configurable with five cabinet sizes to choose from - each with four available configurations that provide building owners and engineers with the lowest-possible profile to maximize occupant and building space.

Contractors will appreciate Enfinity's flush-mounted fittings and low-profile design that minimize installation time and material to perform piping and ductwork, saving both the contractor and building owner a substantial amount of time and money.

For additional savings, we've also factored in fast service and maintenance design into Enfinity WSHPs. EC blower motor, heat exchanger, compressor, and MicroTech III controls are all quickly accessible through removable panels to ensure minimum down-time for any service or maintenance procedures.

Flexible configurations

Unit front (top view)

Left hand return with end discharge

Unit front (top view)

Right hand return with end discharge

Unit front (top view)

Left hand return with straight discharge

Unit front (top view)

Right hand return with straight discharge

- Easy, low-cost design and installation
- High efficiency, low operating costs
- Units exceed ASHRAE 90.1 efficiency levels
- Standard or extended/geothermal range application
- Superior indoor air quality
- Quiet, reliable operation
- Easy, low-cost maintenance and service

Features and options

Unit data

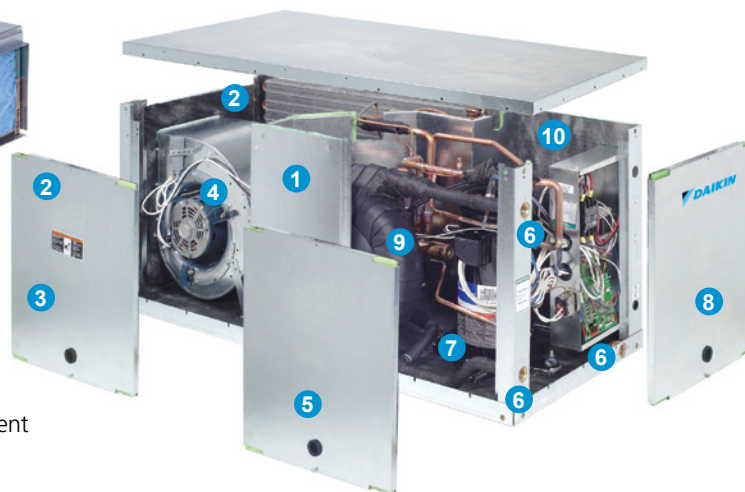| Unit Size	Cabinet Dimensions	Compressor Type	Water Connect.	Motor HP
007, 009*	20"W x 34"L x 11.50"H	Rotary	1/2"	1-1/8
012	20"W x 40"L x 11.50"H			
015	20"W x 42"L x 19"H			1-1/3
019, 024	20"W x 42"L x 19"H	Scroll		
030	21"W x 46"L x 20"H		3/4"	1-1/2
036	21"W x 46"L x 20"H			
042 thru 070	28"W x 52"L x 23"H			

Factory-mounted options

- Extended range - model WCCW
- Straight-thru discharge air
- End discharge air
- MicroTech III control with LonWorks or BACnet
- Direct digital control (DDC) less board for adding controls by others
- Sound blanket (sizes 019-070)
- Closed-cell foam insulation
- Cupronickel heat HX
- 75 VA transformer

- 2" filter rack
- Low static fan motor (sizes 019 & 024)
- EC fan motor (size 015-060)
- EC fan motor (size 007-012)
- Stainless steel drain pan
- 265 volt option
- Disconnect switch (non-fused)
- Low leak 2" filter rack
- Painted cabinet
- 5-year compressor or circuit warranty

EC motor
On average, 40 to 50% more efficient than PSC motors, which help to improve unit efficiency.

MicroTech® III unit control

Right hand return, end discharge shown

1 Cabinet
- Durable, heavy gauge steel cabinet construction

2 Removable panels
- Field interchangeable panels for side or end discharge air arrangement

3 Access panel
- Easy access to blower and motor assembly

4 Blower motor
- Large blower and PSC motor or optional high-efficiency ECM sizes 015 to 060 (ECM motor standard on size 070)

5 Compressor access
- Access panel for compressor section and refrigerant service valves

6 Pipe connections
- Flush mounted water and drain connections

7 Compressor
- Vibration isolated rotary or scroll compressor (sound package - compressor blanket optional)

8 Control access
- Access panel for compressor and control box

9 Coaxial heat exchanger
- High efficiency coaxial heat exchanger (insulated for WCCW extended range models)

10 Unit insulation
- Dual-density fiberglass panels (IAQ closed-cell foam insulation optional)

11 MicroTech® III controls
- MicroTech III unit controller – standalone
- Network controls using LonWorks® or BACnet® communication modules
- I/O expansion module (units with boilerless electric heat)

ASHRAE / AHRI / ISO 13256-1 performance data - WCCH / WCCW

Enfinity Horizontal			PSC Fan Motor							
			Water Loop Heat Pump[3]				Ground Loop Heat Pump[4]			
			Cooling EWT 86°F		Heating EWT 68°F		Cooling EWT 77°F		Heating EWT 32°F	
Unit Size	GPM	CFM	Capacity (Btuh)	EER	Capacity (Btuh)	COP	Capacity (Btuh)	EER	Capacity (Btuh)	COP
007	2.0	315	7600	13.4	10000	4.6	8400	15.8	6400	3.2
009	2.4	315	9600	13.3	12600	4.5	10200	15.3	7700	3.2
012	3.0	400	13000	12.7	16000	4.3	14000	15.0	10500	3.1
015	3.8	500	15500	16.0	18000	5.2	16700	18.7	11400	4.0
019	5.3	630	19600	15.4	22900	4.9	20500	17.9	13900	3.5
024	6.2	800	23700	14.9	27200	4.8	24400	17.0	17100	3.4
030	7.6	1000	30400	15.3	36200	5.0	31500	17.7	23100	3.6
036	9.0	1200	35800	15.2	42500	4.9	37800	17.7	28400	3.6
042	10.7	1400	43000	15.0	50700	5.0	44500	17.1	33900	3.7
048	12.3	1600	48400	14.1	57100	4.7	50200	16.1	38400	3.5
060	15.2	2000	59500	14.6	69400	4.9	61500	16.8	47500	3.7
070*	17.5	2330	67100	13.0	80400	4.4	69800	15.0	53000	3.3

Enfinity Horizontal			EC Fan Motor							
			Water Loop Heat Pump[3]				Ground Loop Heat Pump[4]			
			Cooling EWT 86°F		Heating EWT 68°F		Cooling EWT 77°F		Heating EWT 32°F	
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036	9.0	1200	36000	16.0	42400	5.2	38000	18.8	28700	3.8
042	10.7	1400	43000	15.5	51600	5.2	44100	17.9	34600	3.8
048	12.3	1600	48700	15.6	57700	5.2	50600	18.2	39300	3.9
060	15.2	2000	59700	15.5	69300	5.2	61700	17.9	48000	3.9
070*	17.5	2330	68300	13.5	80400	4.6	71100	15.5	53000	3.4

Notes:
1. Cooling capacity is based on 80.6°F db, 66.2°F wb (27/19°C) Entering Air Temperature.
2. Heating capacity is based on 68°F db (20°C) Entering Air Temperature.
3 Rated in accordance with ISO Standard 13256-1 Boiler/Tower.
4 Rated in accordance with ISO Standard 13256-1 Ground Loop.
5. All ratings based on 208V operation.

* 208-230/60/3 voltage

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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** to find an office near you.

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