

Vertical Stack Hybrid Heat Pumps

Model UVHH: Sizes 02-12 / 0.5-3.0 Tons



Leading Manufacturer of High-Rise Residential HVAC Equipment



APARTMENTS | CONDOS | ASSISTED LIVING | HOTELS | RESORTS

On-Demand, Energy Efficient Comfort

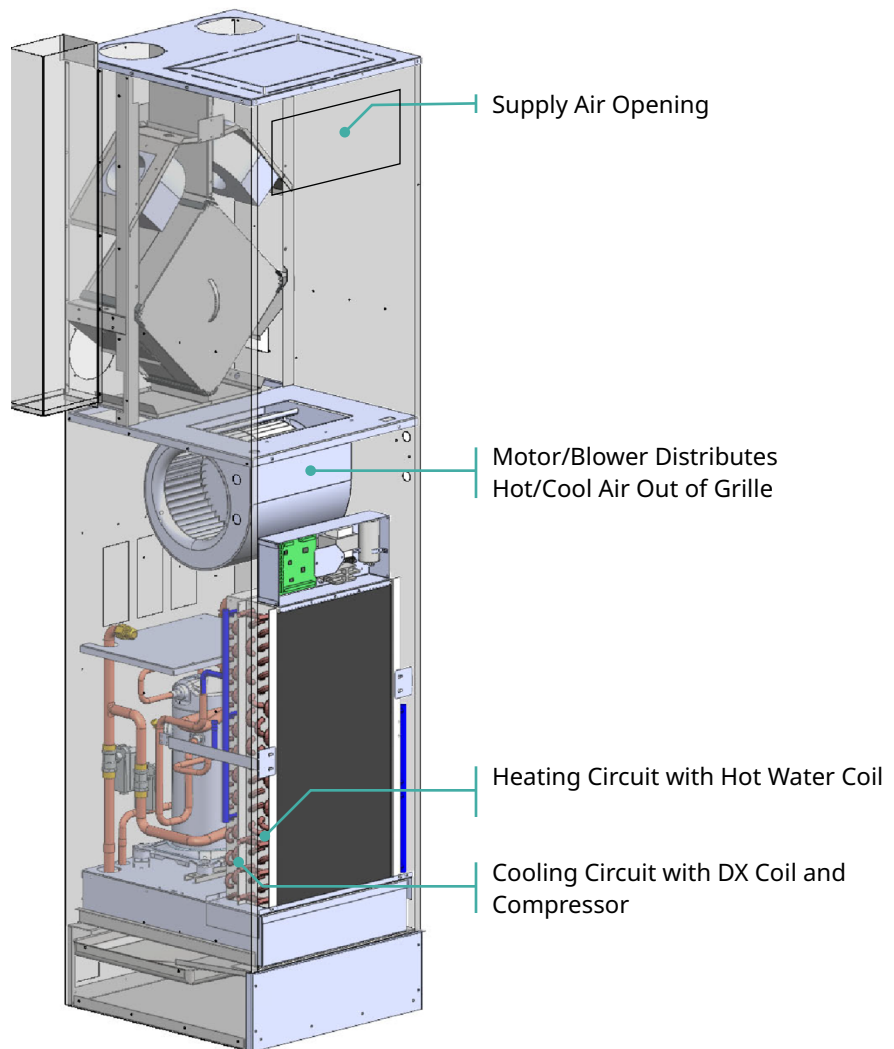
The Unilux HVAC Hybrid Heat Pump combines the cooling power of a heat pump with the heating efficiency of a fan coil for reliable, on-demand heating and cooling all year round.

Heating

Heating is provided by a highly efficient hot water coil. Air flows through the coil and is circulated through the suite by a fan. The hydronic coil is connected to a building-wide hot water riser and boiler system. Hydronic heating is highly efficient and reliable.

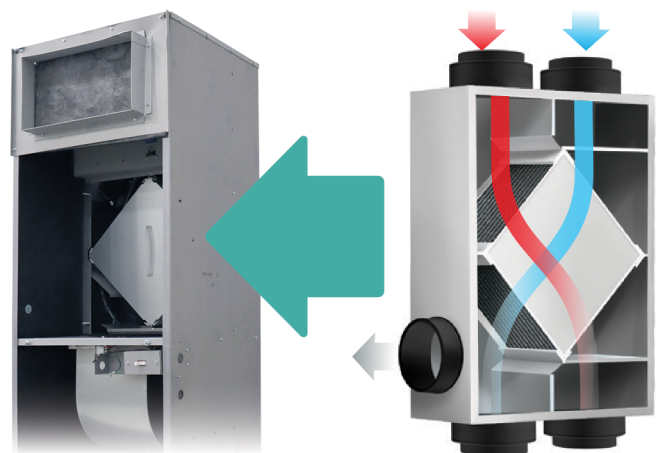
Cooling

Cooling is provided by a refrigerant compressor and DX coil. Air flows through the coil and is distributed to the suite by a blower fan. The heat pump compressor is located inside of the cabinet.



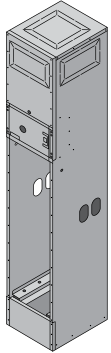
ERV Upgrade

Unilux HVAC has developed a patented energy recovery ventilation system (ERV) that can be integrated with our full line of vertical heat pumps. Our ERV cores further enhance comfort by transferring moisture between exhaust and fresh air, providing cost-effective moisture control. Our integrated ERV solutions include multiple dampers and temperature sensors to ensure cores do not freeze when outside temperatures drop below freezing, without the need for an electric heater.



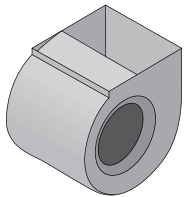
Standard Features

Unilux vertical stack hybrid heat pump units meet the requirements of UL 1995 / CSA22.2 #236—Issue 2011 Standard for safety heating and cooling equipment.



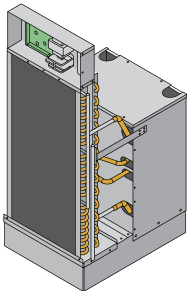
1. Cabinet

20-gauge satin coat steel. Configure with front, back, left, right or top supply air openings. Cabinet is fully insulated with 1-inch fiberglass with a thermosetting resin. It is coated on the airstream side with an acrylic facing with the use of flammable adhesives. Insulation inside the unit has a flame-spread rating no more than 25 and a smoke-developed rating no more than 50.



2. Fan & Motor Assembly

A thermally-protected, multi-speed constant volume ECM motor is resiliently mounted to a centrifugal fan which has a galvanized steel forward-curved DWDI wheel.

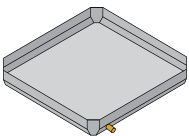


3. Refrigeration Chassis

A completely removeable, floating design features an insulated compressor compartment with vibration isolation.

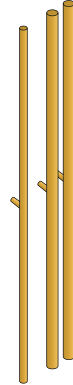
4. Hydronic Hot Water Coil Assembly

Coils corrugated aluminum fins mechanically bonded to 1/2" OD copper tube. The number of rows and circuiting are selected to suit scheduled capacities. Coils are rated for a minimum working pressure of 450 psig.



5. Stainless Steel Drain Pan

The drain pan is one-piece stamped stainless steel pan designed to never leak. It's positively sloped for drainage. The drain hose will form a running trap from the drain to condensate riser. The underside of the drain pan is insulated with 1/2-inch thick thermal and sound insulation.



6. Risers

Supply and return risers are type 'L' copper and condensate risers are type 'dwv'. All have 75 mm (3") deep expanded ends to facilitate field installation. Supply and return risers are insulated with 1" fiberglass covered with a vapour barrier jacket, which complies with ASTM 84 for flame-spread and smoke-developed ratings. The insulation is continuous over the riser length within the height of the cabinet.



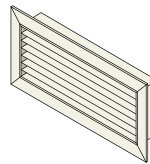
7. Filter

One disposable filter and one 1" MERV 8 filter is included with the return air grille.



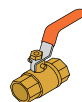
8. Access Panel

20-gauge steel construction finished in a durable baked enamel powder coat. Includes a hinged door for easy filter exchange.



9. Grilles & Registers

Double-deflection supply air grilles have adjustable vertical and horizontal louvers. They are constructed with light-gauge, powder-coated metal.



10. Ball Valves

Shut-off ball valves.



11. Water Hoses

Used to connect chassis to supply and return water connections. Isolates compressor noise from the building's pipe system.

Performance Schedule

General Data						
Model	Tonnes	CFM	ESP	GPM	Fluid	WPD
UVHH-02	0.50	250	0.10	1.75	Water	4.84
UVHH-03	0.75	340	0.10	2.50	Water	11.33
UVHH-04	1.00	450	0.10	3.25	Water	13.80
UVHH-05	1.25	540	0.10	4.00	Water	16.76
UVHH-06	1.50	650	0.10	5.00	Water	18.46
UVHH-08	2.00	810	0.15	6.00	Water	12.63
UVHH-10	2.50	1,060	0.15	7.50	Water	13.45
UVHH-12	3.00	1,200	0.15	8.30	Water	14.74

Electrical Data (with ECM)						
Model	Voltage/Phase/Hz	Compr. RLA	Compr. LRA	Blower FLA	MCZ	Circuit Breaker
UVHH-02	208-230/1/60	3.0	15.0	2.3	6.1 A	15 A
UVHH-03	208-230/1/60	3.7	22.0	2.3	6.9 A	15 A
UVHH-04	208-230/1/60	4.7	26.0	2.3	8.2 A	15 A
UVHH-05	208-230/1/60	5.5	26.0	2.3	9.2 A	15 A
UVHH-06	208-230/1/60	7.4	33.0	2.3	11.6 A	15 A
UVHH-08	208-230/1/60	10.9	61.6	2.8	16.4 A	25 A
UVHH-10	208-230/1/60	11.3	68.0	4.1	18.4 A	30 A
UVHH-12	208-230/1/60	15.5	83.9	4.1	23.6 A	35 A

Cooling Data									
Model	EAT-db	EAT-wb	Capacity Total	Capacity Sensible	WATT	EER	THR	EWT	LWT
UVHH-02	80.6°F / 27°C	66.25°F / 19.03°C	7,496	5,506	499	15.0	9,199	86°F / 30°C	96.51°F / 35.84°C
UVHH-03	80.6°F / 27°C	66.25°F / 19.03°C	9,398	7,061	624	15.1	11,527	86°F / 30°C	95.22°F / 35.12°C
UVHH-04	80.6°F / 27°C	66.25°F / 19.03°C	12,292	9,675	811	15.1	15,061	86°F / 30°C	95.27°F / 35.15°C
UVHH-05	80.6°F / 27°C	66.25°F / 19.03°C	15,463	11,661	993	15.6	18,850	86°F / 30°C	95.42°F / 35.23°C
UVHH-06	80.6°F / 27°C	66.25°F / 19.03°C	18,139	14,347	1,180	15.4	22,165	86°F / 30°C	94.87°F / 34.93°C
UVHH-08	80.6°F / 27°C	66.25°F / 19.03°C	25,832	19,570	1,686	15.3	31,584	86°F / 30°C	96.53°F / 35.85°C
UVHH-10	80.6°F / 27°C	66.25°F / 19.03°C	30,769	23,308	2,038	15.1	37,723	86°F / 30°C	96.06°F / 35.59°C
UVHH-12	80.6°F / 27°C	66.25°F / 19.03°C	34,229	25,946	2,490	13.7	42,724	86°F / 30°C	95.49°F / 35.27°C

Heating Data					
Model	EAT-db	EAT-wb	Capacity Total	EWT	LWT
UVHH-02	68°F / 20°C	59°F / 15°C	9,520	68.3°F / 20.2°C	61.8°F / 16.6°C
UVHH-03	68°F / 20°C	59°F / 15°C	12,490	68.3°F / 20.2°C	60.7°F / 15.9°C
UVHH-04	68°F / 20°C	59°F / 15°C	15,640	68.3°F / 20.2°C	60.1°F / 15.6°C
UVHH-05	68°F / 20°C	59°F / 15°C	18,140	68.3°F / 20.2°C	61.3°F / 16.3°C
UVHH-06	68°F / 20°C	59°F / 15°C	21,030	68.3°F / 20.2°C	61.1°F / 16.2°C
UVHH-08	68°F / 20°C	59°F / 15°C	27,450	68.3°F / 20.2°C	60.1°F / 15.6°C
UVHH-10	68°F / 20°C	59°F / 15°C	32,610	68.3°F / 20.2°C	61.4°F / 16.3°C
UVHH-12	68°F / 20°C	59°F / 15°C	37,340	68.3°F / 20.2°C	61.2°F / 16.2°C

Our state-of-the-art designs are demanded by today's best developers, engineers and owners. Contact us to learn why Unilux HVAC is the preferred choice of professionals throughout North America for vertical stack HVAC solutions.

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