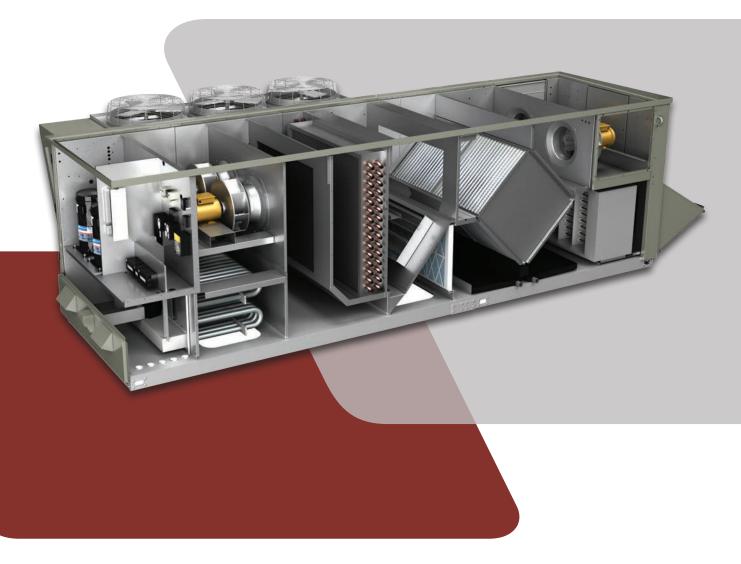




# **Configurable Packaged Air Handling Equipment**



VPR SERIES VPRX SERIES VPRE SERIES VPRP SERIES VPRC SERIES VRC SERIES

# THE VALENT ADVANTAGE

# Quality, reliability, flexibility, and support

Valent<sup>®</sup> manufactures highly configurable packaged air handling systems. At our core is a commitment to initial quality, long-term reliability, application flexibility, and dedicated product support.

# QUALITY

Thorough factory run-testing. After assembly, every unit is energized and rigorously tested for an average time of 90 minutes. Testing verifies proper operation:

- **Refrigeration testing** at multiple conditions to evaluate superheat and subcooling performance
- Heat testing throughout heating operating range
- Electrical testing of component continuity and phasing
- Supply and exhaust fan testing for proper operation

# RELIABILITY

**Safe, consistent lifetime performance.** Reliability is enhanced through:

- Best-in-class components including Digital Scroll<sup>™</sup> and inverter scroll compressors, modulating directdrive fans, and 2" foam injected double wall casings
- Low maintenance requirements including energy recovery options with no moving parts
- Dependable controls platforms

# FLEXIBILITY

**Five casing sizes and pre-engineered options** fit a wide range of applications.

- Multiple heating and cooling configurations allow stand-alone operation or connection to a central system
- Multiple energy recovery options
- Multiple duct connection options

# SUPPORT

Dedicated pre- and post-sale application engineering support. We are here to help you with:

- Design decisions
- Installation guidance
- Ongoing operation and maintenance issues

VPR Series with 352 casing, EC-driven condenser fans, 10:1 turndown gas heat, and modulating hot gas reheat

On the cover: VPRC Series with 210 casing, enthalpic core heat exchanger, indirect gas heat, electric preheat, and modulating hot gas reheat

# PRODUCTS

# Multiple preconfigured platforms and application-specific solutions

Valent's highly configurable air handling systems are available in five casing sizes and include multiple cooling, dehumidification, heating, energy recovery, control, filtration, and duct connection options.

# AIR HANDLERS

#### VPR AND VPRX SERIES

The VPR and VPRX are capable of cooling, heating, and dehumidifying a wide range of entering air loads up to 100% outdoor air. In applications requiring powered exhaust, the VPRX offers modulating exhaust fans for pressure relief and economizer control.

# ENERGY RECOVERY AIR HANDLERS



Valent's rotating enthalpy wheels recover up to 70% of return-air energy, and slide out for easy access.



Valent's flat plate heat exchangers have no moving parts and require minimal maintenance. They both have extremely low airstream crosscontamination rates.

#### **VPRE SERIES**

The VPRE expands upon the VPR packaged platform to include an air-toair enthalpy wheel and powered exhaust fan section. Two enthalpy wheel

types are available: A lightweight polymer wheel with silica gel desiccant, and an aluminum wheel with molecular sieve desiccant.

#### **VPRC SERIES**

When recovering sensible and latent energy is a priority but the maintenance requirements of an enthalpy wheel are unwanted, the VPRC with its enthalpic core heat exchanger is an excellent alternative. The enthalpic core heat exchanger



AHRI 1060 Certified as packaged energy recovery ventilators.

has a 0.5% exhaust air transfer ratio (EATR) as determined by AHRI 1060, and can safely handle accumulated condensate without sustaining frost damage.

#### **VPRP SERIES**

In applications where sensible-only energy recovery is desired, the VPRP delivers with an all-aluminum flat plate heat exchanger that has a low pressure drop and an extremely low cross-contamination rate. Although commonly used in dry climates, the VPRP is also effective in high humidity or polluted spaces where airstream cross-contamination is undesirable.

# SPLIT CONDENSER

#### **VRC SERIES**

VRC remote condensers can be paired with select Valent air handlers. Compressors remain mounted in the indoor air handler for reliability and piping simplification, eliminating the need for a third refrigeration line on circuits with hot gas reheat.



VRC Series remote condenser with ECdriven condenser fan option

# HEATING, COOLING, DEHUMIDIFICATION OPTIONS

## Multiple options for stand-alone operation or connection to a central system

# COOLING AND DEHUMIDIFICATION

## AIR COOLED DIRECT EXPANSION

- Available in packaged or split configurations
- Fully functional factory tested R-410A refrigeration system
- Two coil sets offered:
  - 6-row for greater dehumidification capacity in 100% outdoor air applications
  - 4-row for improved efficiency in mixed-air applications
- Capacity modulation options:
  - Digital Scroll<sup>™</sup> compressor utilizing loading and unloading for modulation
  - Inverter scroll compressor utilizing variable speed modulation resulting in higher part-load performance
- Condensing fan options:
  - Staged AC condenser fans with one VFD-modulated fan for refrigerant pressure control
  - All modulating EC condenser fans with sound reducing blades for improved dehumidification performance, higher efficiency, and lower radiated sound
- Modulating hot gas reheat option recycles compressor exhaust energy to reheat cooled air

## CHILLED WATER

- 6- or 4-row coil depth with variable fin spacing to match the application
- Internal piping routed to an internal vestibule or piped out the unit's side

# HEATING

#### INDIRECT GAS FURNACE

- Standard construction includes 409 stainless steel burner tubes appropriate for 100% outdoor air applications
- Modulation range:
  - 5:1 turndown standard
  - 10:1 turndown option

## ELECTRIC

• SCR-modulated electric resistance heater

#### TEMPERATOR

- Hybrid heating system pairing a 5:1 modulating gas furnace with a small SCR electric heater for total capacity modulation
- On-board controls operate in one of three heating modes:
  - Modulating electric resistance
  - Modulating indirect gas furnace
  - Full-fire indirect gas furnace plus modulating electric resistance

#### HOT WATER

• Designed for connection to an existing hot water loop

## STEAM

• Designed for connection to an existing steam boiler

# HEATING AND COOLING

## WATER SOURCE HEAT PUMP

- Coaxial water-to-refrigerant coil (R-410A) condenses in cooling mode and evaporates in heating mode
- Heat, cool, and dehumidify up to 100% outdoor air at start-up temps to -5 °F
- Operates on boiler-tower or geothermal water loops
- Coaxial heat exchanger suitable for low entering geothermal water temperatures

## AIR SOURCE HEAT PUMP

- Built on the same platform as Valent's packaged air cooled DX system
- Heat pump reversing cycle moves heat from outdoor air to supply air
- Provides heating when outdoor temps are as low as 17 °F before switching to auxiliary heat
- Defrost cycles initiate based on low suction temperature and outdoor air dew point, not a timer, reducing the number of defrost cycles



Valent's water source heat pumps have coaxial water-to-refrigerant coils that are more freeze tolerant than traditional brazed plate heat exchangers.

# COMPONENTS AND OPTIONS

## Pre-engineered components and multiple options provide application flexibility

# A POWER/CONTROLS

#### Power

- •208, 230, 460, or 575 V 3-phase
- •60 Hz input
- Single-point power
- Phase and voltage monitoring

## Controls

- Full controls
- Microprocessor controls all internal components and sequences
- Set point communication via BAS
- Factory control sequences included
- **Controls Lite**
- Microprocessor controls refrigeration components
- Heating and ventilation component control by others
- Ideal for control sequence customization

## Options

- GFCI outlet
- Dual-point power
- Breaker disconnect
- Cabinet heater
- Supply fan, exhaust fan, and damper modulation sequences

# **B** FANS

valentair.com

#### Direct drive plenum fans

- No belts, wheels, or pulleys resulting in reduced maintenance and increased efficiency
- Lightweight wheels with backward curved or airfoil blades
- Up to three fans in parallel to match airflow requirement

## Standard VFD

- Simple airflow
- adjustment
- Soft start improves motor life
- Constant or variable volume flow

#### Options

- Inlet cone airflow
- monitoring
- Shaft grounding rings
- Vibration isolation

## **C** HEATING

- Indirect gas furnace
- Temperator
- Electric heater
- Hot water coil
- Steam coil
- Air source heat pump
- •Water source heat pump

## D COOLING

- Packaged DX
- Split DX
- Air source heat pump
- Water source heat pump
- Chilled water

#### Options

- Hot gas reheat coil
- ElectroFin coil coating
- Stainless steel casing
- Compressor isolation valves
- Sight glasses

# **DUCT CONNECTIONS**

## Supply air

Bottom or side

#### Return air

- VPR: Bottom or end
- VPRX: Bottom
- ERV: Bottom or side

#### Outdoor air

• End, with hood or duct flange

#### Exhaust air

VPRX: End with hood
ERV: One or both sides with backdraft damper

# **FILTRATION**

#### Supply air

#### •2" MERV 8

•4" MERV 8, 11, or 14

#### Outdoor air (ERV)

•2" aluminum or MERV 8

#### Exhaust air (ERV)

•2" aluminum or MERV 8

# Hood

•1" aluminum

## Options

- Filter pressure switch
- Filter pressure
   Magnehelic gage

# **G** ENERGY RECOVERY

#### Type and media

- Polymer enthalpy wheel with silica gel desiccant
- Aluminum enthalpy wheel with molecular sieve desiccant
- Aluminum sensible flat plate heat exchanger
- Polymer enthalpic core heat exchanger

VPRE Series with 210 casing

- DesignExhaust and outdoor air filtration
- Wheel cassettes slide out for cleaning
- Access panels above and drain pans under heat exchangers for cleaning

#### Options

- Electric preheater
- VFD for enthalpy wheel speed modulation
- Bypass damper for heat exchangers in economizer mode

# CONSTRUCTION

- 2" double wall R-12 foam insulation
- Pre-painted exterior

with lockable handles

Low-leakage blades

Dedicated modulating

• Outdoor air standard on

Stainless steel interior

damper construction

measurement station

5

Galvanized interior
Hinged access doors

Dampers

actuator

all units

Options

Airfoil blades

• Aluminum or

• Outdoor air

stainless steel

# **PRODUCT DATA**

			VPR, VPF	RX, VPRE, VPRP, VPR(	CASING	
		V10	110	210	310	352
ΠOW	Minimum (cfm)	550	625	1,250	3,125	3,750
AIRFLOW	Maximum (cfm)	3,000	4,000	8,000	12,000	18,000
s		3-row coil 4	4-row coil 5, 8	4-row coil 10, 13, 16, 18, 20	4-row coil 25, 30, 35	4-row coil 30, 40, 50
NL TON	Packaged air cooled	4-row coil 5, 6, 7	6-row coil 5, 8, 10	6-row coil 10, 13, 16, 18, 20, 25	6-row coil 25, 30, 35, 40	6-row coil 30, 40, 50, 60, 70
MIMC	Split air cooled		4-row coil 5, 8	4-row coil 10, 13, 16, 18, 20	4-row coil 25, 30, 35	_
COOLING TYPE and NOMINAL TONS	(with VRC casing)	_	6-row coil 5, 8, 10	6-row coil 10, 13, 16, 18, 20, 25	6-row coil 25, 30, 35, 40	_
TYPE	Water source heat pump		5, 8, 10	10, 13, 16, 18, 20, 25	25, 30, 35, 40	30, 40, 50, 60
DULING	Air source heat pump	_	5, 8, 10	10, 13, 16, 18, 20, 25	_	_
00	Chilled water	_	4- or 6-row coil	4- or 6-row coil	4- or 6-row coil	4- or 6-row coil
	Digital Scroll™ compressor	_	Standard	Standard	Standard	Standard
ENTS	Inverter scroll compressor	Standard	Optional	Optional	Optional	Optional
COOLING COMPONENTS	Compressor(s) modulation range <sup>a</sup>	21-100%	25-100%	12-100%	6-100%	6-100%
NG CO	Modulating hot gas reheat	Optional	Optional	Optional	Optional	Optional
COOLI	Staged AC condensing fans	_	Standard	Standard	Standard	Standard
	Modulating EC condensing fans	Standard	Optional	Optional	Optional	Optional
E	Minimum (MBh)	75	100	200	400	600
INDIKECT GAS FURNACE	Maximum (MBh)	200	200	400	800	1,200
FU	Turndown	5:1/10:1 °	5:1/10:1 °	5:1/10:1 <sup>c</sup>	5:1/10:1	10:1
EAT	Minimum (kW)		10	15	40	50
ELECTRIC HEAT	Maximum (kW)	_	50	125	150	200
ELEC	SCR modulation		Standard	Standard	Standard	Standard
L L	Hot water		Х	Х	Х	Х
HEAT	Temperator		Х	Х	Х	_

Refer to Valent CAPS<sup>®</sup> selection software or the Valent Mechanical IOM for additional detail. a Modulation range based on Digital Scroll<sup>™</sup> compressor(s). Inverter scroll modulation range may differ. b Available upon request c LP turndown: 3:1/6:1

# **APPROXIMATE WEIGHTS (Ibs)**

	110 CAS	10 CASING												
	А	ir-cooled D	х	Split air-cooled DX		Air source heat pump		Water source heat pump			Chilled water			
	5	8	10	5	8	10	5	8	10	5	8	10	S	L
VPR	1,800	1,800	1,900	1,700	1,700	1,700	1,900	1,900	2,000	1,500	1,600	1,700	1,500	1,600
VPRX	2,100	2,100	2,200	2,000	2,000	2,000	2,200	2,200	2,300	1,800	1,900	2,000	1,800	1,900
VPRE	2,500	2,600	2,700	2,400	2,500	2,500	2,600	2,700	2,800	2,200	2,400	2,500	2,200	2,400
VPRP	2,900	3,000	3,100	2,800	2,900	2,900	3,000	3,100	3,200	2,600	2,800	2,900	2,600	2,800
VPRC	2,700	2,800	2,900	2,600	2,700	2,700	2,800	2,900	3,000	2,400	2,600	2,700	2,400	2,600
VRC	—	—		600	600	700	_	—		_	_	_	—	

Air-cooled and air source heat pump units estimated with 200 MBh indirect gas furnace. Chilled water units estimated with hot water coil.

	210 CA	SING													
			Air-co	oled DX					Split air-	cooled DX					
	10	13	16	18	20	25	10	13	16	18	20	25	]		
VPR	2,600	2,700	2,900	2,900	3,200	3,300	2,300	2,400	2,500	2,500	2,700	2,700			
VPRX	3,000	3,100	3,200	3,300	3,700	3,800	2,700	2,800	2,800	2,900	3,200	3,200			
VPRE	3,700	3,700	3,900	4,000	4,300	4,500	3,400	3,400	3,500	3,600	3,800	3,900			
VPRP	4,000	4,100	4,200	4,300	4,700	4,800	3,700	3,800	3,800	3,900	4,200	4,200			
VPRC	3,800	3,900	4,000	4,100	4,500	4,700	3,500	3,600	3,600	3,700	4,000	4,100			
VRC	_			—	_		900	1,000	1,100	1,100	1,200	1,300	]		
			Air source	heat pump	)		Water source heat pump						C	hilled wat	er
	10	13	16	18	20	25	10	13	16	18	20	25	S	М	L
VPR	2,700	2,800	3,000	3,000	3,300	3,400	2,100	2,100	2,200	2,300	2,400	2,400	2,000	2,100	2,200
VPRX	3,100	3,200	3,300	3,400	3,800	3,900	2,500	2,500	2,500	2,700	2,900	2,900	2,400	2,500	2,700
VPRE	3,800	3,800	4,000	4,100	4,400	4,600	3,600	3,500	3,500	3,800	4,000	4,100	3,100	3,200	3,300
VPRP	4,100	4,200	4,300	4,400	4,800	4,900	5,000	4,900	4,800	5,200	5,500	5,600	3,400	3,500	3,700
VPRC	3,900	4,000	4,100	4,200	4,600	4,800	6,200	6,100	5,900	6,400	6,800	7,000	3,200	3,300	3,500
VRC	-	-	_		_	_	_	_	_	_			_	_	_
		Air-cooled and air source heat pump units estimated with 400 MBh indirect gas furnace. Chilled water units estimated with hot water coil.													

Air-cooled and air source heat pump units estimated with 400 MBh indirect gas furnace. Chilled water units estimated with hot water coil.

310 CAS	310 CASING												
	Air-coo	oled DX		Split air-cooled DX			Water source heat pump				Chilled water		
25	30	35	40	25	30	35	40	25	30	35	40	S	L
4,100	4,300	4,500	4,500	3,400	3,600	3,600	3,600	3,000	3,200	3,300	3,400	3,200	3,300
4,600	4,800	5,000	5,100	3,900	4,100	4,100	4,200	3,500	3,700	3,800	3,900	3,700	3,800
5,500	5,700	5,900	5,900	4,800	5,000	5,000	5,000	4,400	4,600	4,700	4,800	4,600	4,700
6,300	6,500	6,700	6,700	5,600	5,800	5,800	5,800	5,200	5,400	5,500	5,600	5,400	5,500
6,000	6,200	6,400	6,400	5,300	5,500	5,500	5,500	4,900	5,100	5,200	5,300	5,100	5,200
—	—	—	—	1,300	1,500	1,700	1,700	—		—	_	_	—
	25 4,100 4,600 5,500 6,300	Air-cod           25         30           4,100         4,300           4,600         4,800           5,500         5,700           6,300         6,500	Air-cooled DX           25         30         35           4,100         4,300         4,500           4,600         4,800         5,000           5,500         5,700         5,900           6,300         6,500         6,700	Air-cooled DX           25         30         35         40           4,100         4,300         4,500         4,500           4,600         4,800         5,000         5,100           5,500         5,700         5,900         5,900           6,300         6,500         6,700         6,700           6,000         6,200         6,400         6,400	Air-cooled DX         25         30         35         40         25           4,100         4,300         4,500         4,500         3,400           4,600         4,800         5,000         5,100         3,900           5,500         5,700         5,900         5,900         4,800           6,300         6,500         6,700         6,700         5,600           6,000         6,200         6,400         6,400         5,300	Air-cooled DX         Split air-cooled DX           25         30         35         40         25         30           4,100         4,300         4,500         4,500         3,400         3,600           4,600         4,800         5,000         5,100         3,900         4,100           5,500         5,700         5,900         5,900         4,800         5,000           6,300         6,500         6,700         6,700         5,800         5,800           6,000         6,200         6,400         5,300         5,500         5,500	Air-cooled DX         Split air-cooled DX           25         30         35         40         25         30         35           4,100         4,300         4,500         4,500         3,400         3,600         3,600           4,600         4,800         5,000         5,100         3,900         4,100         4,100           5,500         5,700         5,900         5,900         4,800         5,000         5,000           6,300         6,500         6,700         6,700         5,600         5,800         5,800           6,000         6,200         6,400         6,400         5,300         5,500         5,500	Air-cooled DX         Split air-cooled DX           25         30         35         40         25         30         35         40           4,100         4,300         4,500         3,400         3,600         3,600         3,600           4,600         4,800         5,000         5,100         3,900         4,100         4,200           5,500         5,700         5,900         5,600         5,000         5,000         5,000           6,300         6,500         6,700         6,700         5,800         5,800         5,800           6,000         6,200         6,400         6,400         5,300         5,500         5,500         5,500	Air-cooled DX         Split air-cooled DX         Split air-cooled DX           25         30         35         40         25         30         35         40         25           4,100         4,300         4,500         4,500         3,400         3,600         3,600         3,600         3,000           4,600         4,800         5,000         5,100         3,900         4,100         4,200         3,500           5,500         5,700         5,900         5,900         4,800         5,000         5,000         4,400           6,300         6,500         6,700         6,700         5,600         5,800         5,800         5,800         5,200           6,000         6,200         6,400         6,400         5,300         5,500         5,500         4,900	Air-coled DX         Split air-coled DX         Water source           25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         3600         3,600         3,600         3,000         3,200         3,200         3,600         3,600         3,600         3,600         3,000         3,200         3,700         3,500         5,500         5,500         5,500         3,700         3,700         3,700         3,700         3,700         3,700         4,600         4,600         4,600         4,600         4,600         4,600         4,600         4,600         4,600         4,600         4,600         5,000         5,800         5,800         5,200         5,400         4,600           6,300         6,200         6,400         6,400         5,500         5,500         5,500         4,900         5,100	Air-cooled DX         Split air-cooled DX         Water source heat pump           25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         35           4,100         4,300         4,500         4,500         3,400         3,600         3,600         3,600         3,000         3,200         3,300           4,600         4,800         5,000         5,100         3,900         4,100         4,100         4,200         3,500         3,700         3,800           5,500         5,700         5,900         5,900         4,800         5,000         5,000         5,000         4,400         4,600         4,700           6,300         6,500         6,700         6,700         5,600         5,800         5,800         5,800         5,200         5,400         5,500           6,000         6,200         6,400         5,300         5,500         5,500         5,500         4,900         5,100         5,200	Air-cooled DX         Split air-cooled DX         Image: Weight and W	Air-coled DX         Split air-coled DX         Chilled           25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         25         30         35         40         5         5         5         30         35         40         5         5         5         30         35         40         5         5         5         30         35         40         5         5         5         3         30         35         40         5         5         5         30         35         40         5         5         5         3         300         3,400         3,200         3,200         3,300         3,400         3,200         3,700         3,800         3,200         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700         3,700

Air-cooled units estimated with 800 MBh indirect gas furnace. Chilled water units estimated with hot water coil.

	V10 CASING									
	Air-cooled DX									
	4 5 6 7									
VPR	950	1,000	1,000	1,050						
	Estimated with 150 MBh indirect gas furnace.									

	352 C <i>i</i>	352 CASING										
		Air-cooled DX					ater sourc	mp	Chilled water			
	30	40	50	60	70	30	40	50	60	L		
VPR	6,950	7,350	7,650	7,950	7,950	6,200	6,450	6,650	6,800	6,250		
VPRX	7,750	8,150	8,450	8,750	8,750	7,000	7,250	7,450	7,600	7,050		
VPRE	9,550	9,850	10,250	10,450	10,450	8,800	9,050	9,250	9,400	8,850		
VPRP	11,450	11,750	12,150	12,350	12,350	10,700	10,950	11,150	11,300	10,750		
VPRC	11,050	11,450	11,750	12,050	12,050	10,300	10,550	10,750	10,900	10,350		
	Air-cooled units estimated with 1,200 MBh indirect gas furnace.											

# **VPR SERIES**

# VALENT'S V10 CASING: 4 TO 7 TONS, SEERs OVER 18, IEERs OVER 20



**Valent units now deliver cooling capacities from 4 to 70 nominal tons,** with the V10 filling out the Valent product line at 4 to 7 nominal tons, increasing single-sourcing capability.

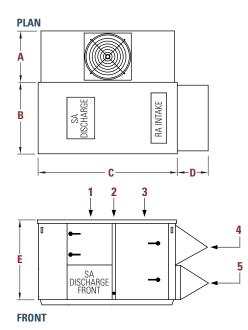
**High efficiencies.** Inverter scroll compressors and EC-driven fans deliver SEER ratings over 18 and IEER ratings over 20. Increased part-load efficiency reduces operating costs.

**Technologically advanced.** Precise cooling and dehumidification control are delivered with the latest compressor technology, an electronic expansion valve, and a modulating EC condenser fan backed by Unison Controls to optimize performance and efficiency.

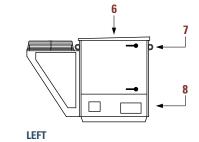
**Quiet.** Inverter scrolls significantly reduce sound during compressor unloading. EC condenser fans with owlet blades reduce radiated sound throughout the operational range, allowing install location flexibility.

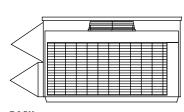
Unison Controls optimize performance and reduce risk. We understand best how to get the most out of our systems.

# V10 AIR-COOLED DX



# DIMENSIONS (inches) A B C D E V10 30.0 40.0 79.25 18.75 49.0





BACK

7 Lifting lug (typ. quantity 4)

8 Heater/furnace access panel

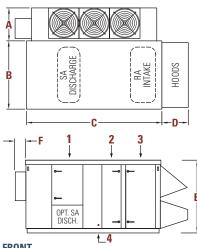
- 1 Supply fan access door
- **2** Condensate drain connection (1.0" dia.)
- 3 Evaporator coil and supply air filter access door
- 4 Outdoor air intake hood
- **5** Gravity relief damper, if equipped

6 Compressor, controls, and electrical access door

# **VPR | VPRX SERIES**

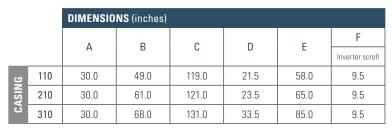
# 110-210-310 AIR-COOLED DX | AIR SOURCE HEAT PUMP

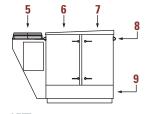




#### FRONT

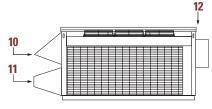
- 1 Supply fan access door
- 2 Evaporator and reheat coil access door
- Supply air filter, return air damper, and outdoor 3 air damper access door
- 4 Condensate drain connection (1.0" dia.)





#### LEFT

- **5** Air-cooled condensing section
- Compressor access door 6
- Electrical and controls access door 7
- 8 Lifting lug (typ. quantity 4)
- 9 Heater access panel

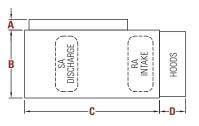


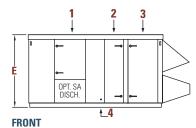
#### BACK

- 10 Outdoor air intake hood
- 11 Exhaust fan hood (VPRX only)
- 12 VFD enclosure (inverter scroll only)

# 110-210-310 CHILLED WATER | WATER SOURCE HEAT PUMP | SPLIT DX

#### PLAN

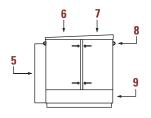




- 1 Supply fan access door
- 2 Evaporator and reheat coil access door
- Supply air filter, return air damper, and outdoor 3 air damper access door
- 4 Condensate drain connection (1.0" dia.)

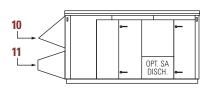
		DIMENSIONS (inches)								
		A*	В	С	D	E				
9	110	14.0	49.0	119.0	21.5	58.0				
CASING	210	14.0	61.0	121.0	23.5	65.0				
3	310	14.0	68.0	131.0	33.5	85.0				
		* Not applie	able for chille	dwator						

Not applicable for chilled water



LEFT

- 5 Refrigeration access panels (water source heat pump or split DX only)
- 6 Compressor access door
- Electrical and controls access door 7

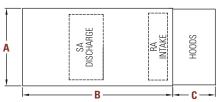


- 8 Lifting lug (typ. quantity 4)
- 9 Heater access panel
- 10 Outdoor air intake hood
- 11 Exhaust fan hood (VPRX only)

# VPR | VPRX SERIES

# 352 WATER SOURCE HEAT PUMP | CHILLED WATER

#### PLAN

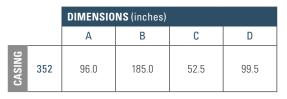


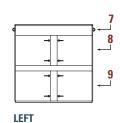
 1	<b>2</b> ↓	<b>3</b> ↓	4	_
	OPT. SA DISCH.		-	
e	5	±6		J

#### FRONT

- 1 Coaxial coil access door (WSHP) Heater access panel (CW)
- 2 Supply fan access door
- **3** Evaporator and reheat coil access door
- 4 Supply air filter, return air damper, and outdoor air damper access door

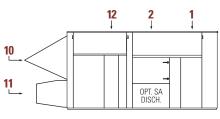
# 352 AIR-COOLED DX





5 Gas connection (gas heat only) 1.0" dia. for 600 MBh, 2.0" dia. for 800-1,200 MBh

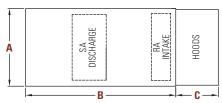
- 6 Condensate drain connection (1.0" dia.)
- 7 Lifting lug (typ. quantity 6)
- 8 Compressor access door

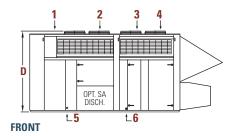


#### BACK

- 9 Electrical and controls access door
- **10** Outdoor air intake hood
- 11 Exhaust fan hood (VPRX only)
- 12 Evaporator and reheat coil access panel

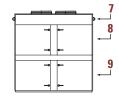
#### PLAN





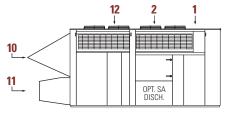
- 1 Heater access panel
- 2 Supply fan access door
- 3 Evaporator and reheat coil access door
- 4 Supply air filter, return air damper, and outdoor
- air damper access door

	DIMENSIONS (inches)								
	А	В	С	D					
SUNG 352	96.0	185.0	52.5	99.5					



LEFT

- 5 Gas connection (gas heat only) 1.0" dia. for 600 MBh, 2.0" dia. for 800-1,200 MBh
- 6 Condensate drain connection (1.0" dia.)
- 7 Lifting lug (typ. quantity 6)
- 8 Compressor access door

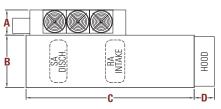


- 9 Electrical and controls access door
- **10** Outdoor air intake hood
- 11 Exhaust fan hood (VPRX only)
- 12 Evaporator and reheat coil access panel

# **VPRE SERIES**

# 110-210-310 AIR-COOLED DX | AIR SOURCE HEAT PUMP

PLAN

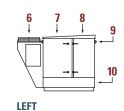


		DIMENSIONS (inches)								
		А	В	(	)	D	E	F		
		A	В	Bottom return	Side return	U	L	Inverter scroll		
9	110	30.0	49.0	158.0	185.0	21.5	58.0	9.5		
CASING	210	30.0	61.0	168.0	195.0	23.5	65.0	9.5		
G	310	30.0	68.0	178.0	205.0	33.5	85.0	9.5		



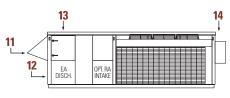
#### FRONT

- 1 Supply fan access door
- 2 Evaporator and reheat coil access door
- 3 Supply air filter and return air damper access door
- 4 Energy recovery wheel access door



#### 5 Condensate drain connection (1.0" dia.)

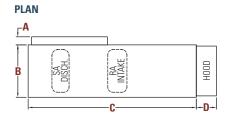
- Air-cooled condensing section 6
- Compressor access door 7
- 8 Electrical and controls access door
- Lifting lug (typ. quantity 6) 9

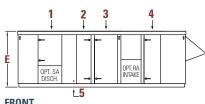


BACK

- **10** Heater access panel
- 11 Outdoor air intake hood
- 12 Exhaust fan access door
- 13 Outdoor air filter and outdoor air damper access door
- **14** VFD enclosure (inverter scroll only)

# 110-210-310 CHILLED WATER | WATER SOURCE HEAT PUMP | SPLIT DX



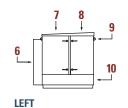


#### FRONT

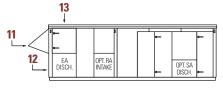
- 1 Supply fan access door
- 2 Evaporator and reheat coil access door
- 3 Supply air filter and return air damper access door
- 4 Energy recovery wheel access door

		DIMENSIONS (inches)									
		Α*	В	(	2	D	E				
		A	D	Bottom return Side return		D	E				
5	110	14.0	49.0	158.0	185.0	21.5	58.0				
CASING	210	14.0	61.0	168.0	195.0	23.5	65.0				
2	310	14.0	68.0	178.0	205.0	33.5	85.0				
		* Not applicable for chilled water									

Not applicable for chilled water



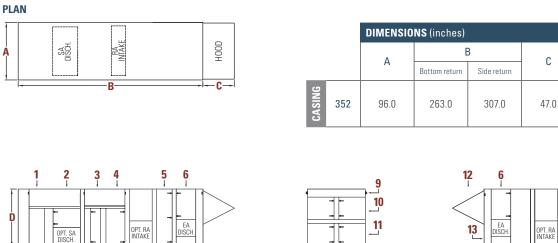
- Condensate drain connection (1.0" dia.) 5
- Refrigeration access panels (water source heat 6 pump or split DX only)
- 7 Compressor access door
- Electrical and controls access door 8



- 9 Lifting lug (typ. quantity 6)
- 10 Heater access panel
- 11 Outdoor air intake hood
- 12 Exhaust fan access door
- 13 Outdoor air filter and outdoor air damper access door

# **VPRE SERIES**

# 352 WATER SOURCE HEAT PUMP | CHILLED WATER



FRONT

PLAN

- 1 Coaxial coil access door (WSHP)
- Heater access panel (CW)

SA DISCH.

2 Supply fan access door

L7

3 Evaporator and reheat coil access door 4 Supply air filter and return air damper access door

t-8

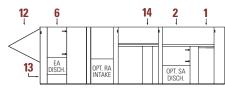
# 352 AIR-COOLED DX



- 5 Energy recovery wheel access door
- Outdoor air filter and outdoor air damper access 6 door
- 7 Gas connection (gas heat only) 1.0" dia. for 600 MBh, 2.0" dia. for 800-1,200 MBh
- 8 Condensate drain connection (1.0" dia.)

TOOP

-C--



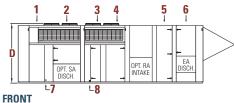
D

99.5

BACK

- 9 Lifting lug (typ. quantity 8)
- 10 Compressor access door
- 11 Electrical and controls access door
- 12 Outdoor air intake hood
- 13 Exhaust fan access door
- 14 Evaporator and reheat coil access panel

		DIMENSIO	NS (inches)				
		Δ	E	3	C	D	
		A	Bottom return	Side return	U		
CASING	352	96.0	263.0	307.0	47.0	99.5	



INTAKE

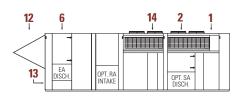
R



- 1 Heater access panel
- 2 Supply fan access door
- 3 Evaporator and reheat coil access door
- 4 Supply air filter and return air damper access door
- 5 Energy recovery wheel access door



- Outdoor air filter and outdoor air damper access 6 door
- Gas connection (gas heat only) 1.0" dia. for 600 MBh, 2.0" dia. for 800-1,200 MBh 7
- 8 Condensate drain connection (1.0" dia.)
- 9 Lifting lug (typ. quantity 8)

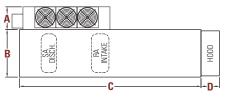


- 10 Compressor access door
- 11 Electrical and controls access door
- 12 Outdoor air intake hood
- 13 Exhaust fan access door
- 14 Evaporator and reheat coil access panel

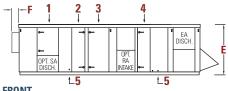
# **VPRP | VPRC SERIES**

# 110-210-310 AIR-COOLED DX | AIR SOURCE HEAT PUMP

PLAN

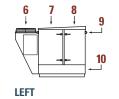


		DIMENSIONS (inches)							
		А	В	С		D	E	F	
				Bottom return	Side return	U		Inverter scroll	
CASING	110	30.0	49.0	197.0	224.0	21.5	58.0	9.5	
	210	30.0	61.0	207.0	234.0	23.5	65.0	9.5	
	310	30.0	68.0	242.0	269.0	33.5	85.0	9.5	





- 1 Supply fan access door
- 2 Evaporator and reheat coil access door 3 Supply air filter and return air damper access
- door 4
- Heat exchanger access door
- 5 Condensate drain connection (1.0" dia.)





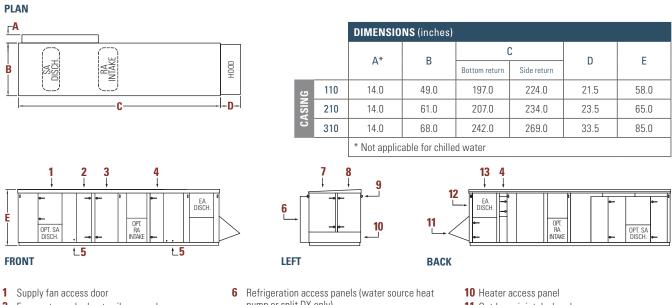
- Compressor access door 7
- Electrical and controls access door 8
- 9 Lifting lug (typ. quantity 8)
- 10 Heater access panel



BACK

- 11 Outdoor air intake hood
- 12 Exhaust fan access door
- 13 Outdoor air filter and outdoor air damper access door
- **14** VFD enclosure (inverter scroll only)

# 110-210-310 CHILLED WATER | WATER SOURCE HEAT PUMP | SPLIT DX

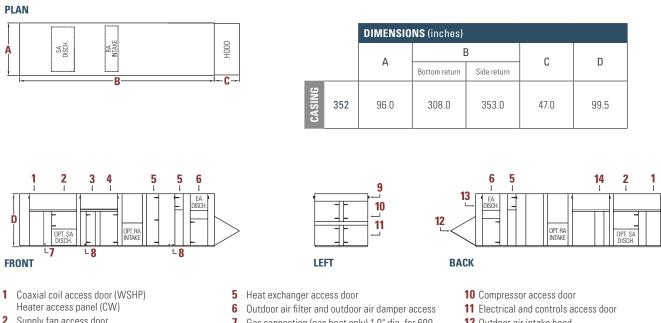


- 2 Evaporator and reheat coil access door
- 3 Supply air filter and return air damper access door
- 4 Heat exchanger access door
- 5 Condensate drain connection (1.0" dia.)
- pump or split DX only)
- 7 Compressor access door
- 8 Electrical and controls access door
- 9 Lifting lug (typ. quantity 8)

- 11 Outdoor air intake hood
- 12 Exhaust fan access door
- 13 Outdoor air filter and outdoor air damper access door

# **VPRP | VPRC SERIES**

# 352 WATER SOURCE HEAT PUMP | CHILLED WATER



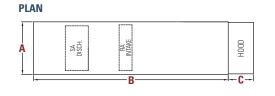
- 2 Supply fan access door
- 3 Evaporator and reheat coil access door
- 4 Supply air filter and return air damper access door

# 352 AIR-COOLED DX

- Gas connection (gas heat only) 1.0" dia. for 600 7 MBh, 2.0" dia. for 800-1,200 MBh
- 8 Condensate drain connection (1.0" dia.)
- Lifting lug (typ. quantity 10) 9

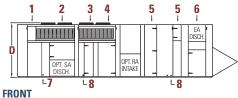


- 12 Outdoor air intake hood
- 13 Exhaust fan access door
- 14 Evaporator and reheat coil access panel



# **DIMENSIONS** (inches)

		Δ	E	3	C	п
		А	Bottom return	Side return	U	D
CASING	352	96.0	308.0	353.0	47.0	99.5

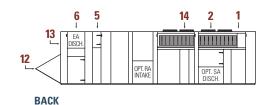




- 1 Heater access panel
- 2 Supply fan access door
- 3 Evaporator and reheat coil access door
- 4 Supply air filter and return air damper access door
- 5 Heat exchanger access door



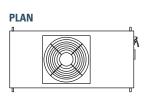
- 6 Outdoor air filter and outdoor air damper access
- Gas connection (gas heat only) 1.0" dia. for 600 7 MBh, 2.0" dia. for 800-1,200 MBh
- Condensate drain connection (1.0" dia.) 8
- Lifting lug (typ. quantity 10) 9

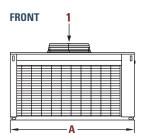


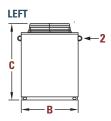
- **10** Compressor access door
- 11 Electrical and controls access door
- 12 Outdoor air intake hood
- 13 Exhaust fan access door
- 14 Evaporator and reheat coil access panel

# VRC SERIES: AIR COOLED DX

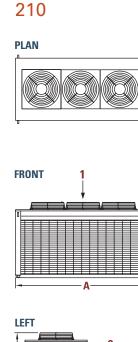
110

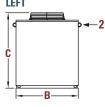










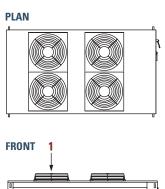


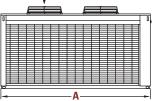


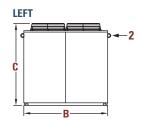
		DIMENSIONS (inches)				
		А	В	С		
CASING	110	79.0	36.0	49.0		
	210	109.0	48.0	58.0		
	310	115.0	65.0	64.0		

- 1 Condensing fan
- 2 Lifting lug (typ. quantity 4)
- 3 Nonfused disconnect / electrical access

# 310









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# **Configurable Packaged Air Handling Equipment**

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