

Geothermal HEAT PUMPS

Comfort Control² System™

Equipped with

Comfort Control² System™

- Serial communication enabled
- Increased system reliability and efficiency
- 37+ on-board diagnostic and operating codes
- *Active Protection™* with homeowner "Call for Service" alert
- Exclusive Design with dual 7-segment LED display

R410A
featuring
earth friendly refrigerant

RPV V/H/D

Geothermal Two-Stage Cooling/Two-Stage Heating
Packaged Units

Five Models

- Nominal Sizes 2, 3, 4, 5 & 6 Tons
[7.03, 10.5, 14.07, 17.6 & 21.1 kW]



Rheem
Prestige
S E R I E S

The Rheem *Prestige Series™* High Efficiency Two-Stage RPV V/H/D Packaged Geothermal Heat Pump can provide year-round heating and cooling comfort. The Packaged RPV Series delivers 2 stages of heat and 2 stages of cooling for precise temperature control and optimal energy efficiency.

- The *Comfort Control² System™* provides over 37+ on-board diagnostics and fault history codes for condensing units with single-phase compressors by detecting system and electrical problems. The integrated diagnostics with *Active Protection™* prevents compressor operation when potentially harmful conditions are detected. Sends "Call for Service" alert notification to the thermostat to alert the homeowner of required service.
- Serial Communication Enhanced – When installed with a user interface control (RHC-TST501CMMS) Series 500 thermostat this unit offers 4 or 2 wire installation, auto-configuration, and diagnostic messaging with full communicating capability.
- Features a standard 10-year limited warranty on major refrigerant circuit components and a 5-year limited warranty on all remaining covered components. See product warranty certificate for additional information.
- Legacy Enabled – Unit can be conventionally wired using 24VAC with non-communicating thermostat.
- Reliable Two-Stage operation for precise temperature control and On-Demand dehumidification. The system adjusts airflow to help control humidity for unsurpassed comfort in the cooling mode.
- Internally trapped condensate drain (vertical units).
- Variable speed ECM fan motor adjusts to various duct systems.
- Internal electric heat (optional) designed for easy field installation.
- Circuit breaker protected loop and hot water generator pumps.
- Standard 2" high performance MERV 11 pleated air filter.
- Two stage operation for ultra high efficiencies and the ultimate in comfort.
- Optional hot water generator with internal pump generates hot water at considerable savings.
- Oversized coaxial tube water-to-refrigerant heat exchangers.
- Oversized e-coated, rifled tube/lanced aluminum fin air-to-refrigerant heat exchangers provide high efficiency at low face velocity.

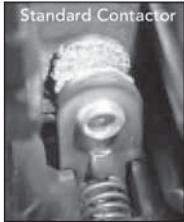


"Proper sizing and installation of equipment is critical to achieve optimal performance. Ask your Contractor for details or visit www.energystar.gov <<http://www.energystar.gov/>>" for Energy Star Compliance Information.

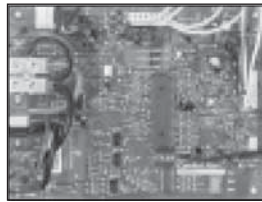
FEATURES & BENEFITS OF THE COMFORT CONTROL² SYSTEM™

- The Rheem Exclusive Dual 7 Segment LED Display easily shows system status codes and conditions.

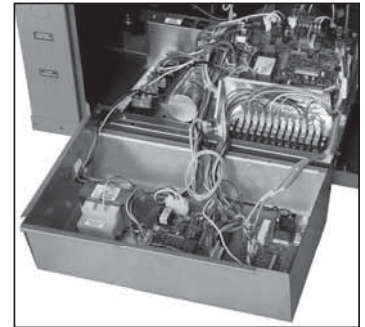
- A Sealed Switch replaces the standard contactor and features optical control and latching mechanism. The sealed switch prevents infiltration of insects and dust. A minimal switching arc, by the optical control, offers greater reliability. The latching mechanism consumes less power while reducing chatter.



- The Status Indication and System Diagnostics feature thermostat-communication capability, built-in diagnostics, current sensing and high & low switch monitoring. The thermostat communication capability alerts the homeowner of any necessary service requirements. Faster, more accurate service is provided with the built-in diagnostics, by providing the HVAC professional with dependable information. In addition, high and low pressure-switch monitoring prevents the system from operating when damage could occur.



- The Fault Recall feature will allow for the last six fault-codes to be displayed, and will retain these codes even if power failure occurs.
- Built-in short-cycle protection allows the compressor to restart easily without removing the oil from the compressor.
- A 30-second minimum run-time for every compressor call allows the oil to return to the compressor.
- **Active Protection** prevents the compressor from operating if damage could occur.
- A manual push-button is offered to operate the compressor for 5 seconds to allow for an operation check.
- In order to save time and money, replacement automotive fuses can be utilized instead of replacing the entire control board.

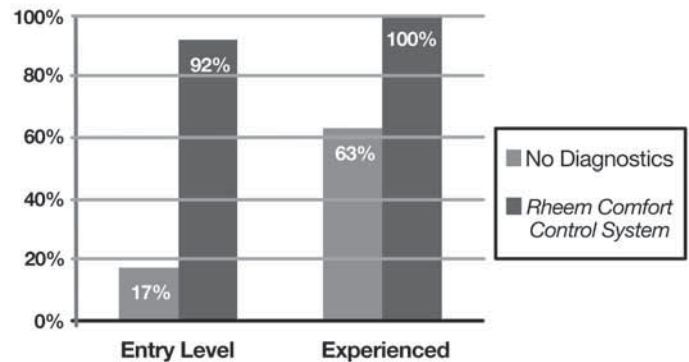


STANDARD FEATURES

RPV V/H/D Heat Pumps

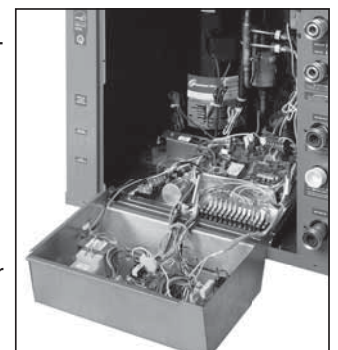
1. Large, low RPM blowers with variable speed fan motors provide quiet, efficient air movement with high static capability.
2. Factory installed liquid line filter/drier.
3. Brass swivel-type water connections for quick connection and elimination of wrenches or sealants during installation.
4. Circuit breaker protected 75VA control transformer.
5. Coaxial heat exchanger, refrigerant suction lines, and all water lines are fully insulated to eliminate condensation problems in low temperature applications.
6. Noise reduction features include: double isolation mounted compressor, insulated compressor compartment, interior cabinet insulation using ½" glass fiber, and variable speed fan.
7. 2-stage operation in both cooling and heating mode.
8. Scroll compressor is hermetically sealed and incorporates internal high temperature motor overload protection, and durable insulation on the motor windings.
9. Compressors have an internal pressure relief assembly to protect against excessive pressure differential.
10. Cabinet is constructed of powder painted galvanized steel.
11. Field connections for power and control wiring are kept separate.
12. Every unit is factory charged and run-tested.
13. Separate compressor compartment for easy service access.

Problem-Solving Accuracy



TWO-STAGE SCROLL[®] COMPRESSOR

The scroll compressor is the key to efficiency for this Rheem model. It's the latest in high-efficiency compressor technology. The advanced scroll compressor offers low noise and vibration characteristics and features tolerance to liquid refrigerant and system contamination. The scroll also has low start torque, eliminating start problems in the field. And its unique design enables the Heat Pump to perform efficiently, quietly and reliably. All models have a 10-year compressor warranty as standard.



All controls and compressor are accessible for servicing by removal of the service panel.

MODEL NUMBER IDENTIFICATION

R
Rheem

P
Geothermal
Heat Pump

V
Efficiency
Reference
V = 27 EER

V
Configuration
V = Vertical
H = Horizontal
D = Downflow

A
Rev Level A =
Current
Revision

036
Unit Size
025
036
048
062
069

J
Voltage
J = 208-
230/60/1

C
Controls
C = Comfort
Control²
System

1
Water
Circuit
Options
0 = None
1 = HWG
w/internal
pump

N
Heat Exchanger Options
C = Copper w/coated air coil
N = Cupro-Nickel w/coated
air coil
B = Copper w/422 coated
air coil
H = Cupro-Nickel w/422
coated air coil

L
Return Air Flow
Configuration
L = Left Return
R = Right Return

T
Supply Air Flow
Configuration

S
Standard

Rheem Heat Pump System

For all season home comfort, performance and energy conservation, choose a Rheem Prestige Series™ RPV V/H/D Series Packaged Geothermal Heat Pump.

PACKAGED UNIT ACCESSORIES

Thermostats



500-Series*

Communicating/Programmable

Brand	Unique Model Number Prefix	Descriptor (3 Characters)	Series (3 Characters)	System (2 Characters)	Type (2 Characters)
RHC	-	TST	550	CM	MS
RHC=Rheem		TST=Thermostat	500=Comfort Control ² Series	CM=Communicating	MS=Multi-Stage

*Photos are representative. Actual models may vary.

IMPORTANT:

The Comfort Control² System™ requires a communicating RPV V/H/D Heat Pump and the 500-Series Thermostat.

CLOSED LOOP ACCESSORIES

Item/Description	Part Number	Used With Models		
		RPV		
Auxiliary/Emergency Heaters		025	036	048 - 069
Internally mounted in vertical cabinets. Externally mounted on horizontal cabinets. 15-20 kW include internal circuit breaker. Circuit fusing per UL/NEC. Wiring Harness connection included in residential units.	AGM4A			
	AGM5A			
	AGM8A			
	AGM10A			
	AGL4A			
	AGL10A			
	AGL15A			
	AGL20A			
	16B0002N02	Single circuit adapter kit for 15-20 kW heater		

Unit Pad		
High density plastic pad for quiet operation	ASP30	All vertical & splits units

Pump Slaving Module		
Module w/NEMA enclosure	APSM	Allows a single flow controller to be controlled by 2 different units. Eliminates additional field wiring and extra relays.

PACKAGED UNIT ACCESSORIES

Item	Part Number	Description	
Flow Controllers			
Composite 3-way valves*	AFCG1C1	1-Grundfos UP26-99 pump	Small Compact, proven design, easy to mount, urethane foam insulated to prevent condensation, includes factory supplied full flow service valves for easy loop charging, Uses double o-ring adaptor fittings for unit and loop connections. Gray polystyrene cabinet with black pumps. Composite 3-way valves. 230VAC pump(s).**
	AFCG2C1	2-Grundfos UP26-99 pumps	
Brass 3-way valves*	AFCG1B1	1-Grundfos UP26-99 pump	Small Compact, proven design, easy to mount, urethane foam insulated to prevent condensation, includes factory supplied full flow service valves for easy loop charging, Uses double o-ring adaptor fittings for unit and loop connections. Gray polystyrene cabinet with black pumps. Brass 3-way valves. 230VAC pump(s).**
	AFCG2B1	2-Grundfos UP26-99 pumps	
	AFCG2B2	2-Grundfos UP26-116 pumps	

Flow Controllers include limited 5-year parts warranty and DOA labor allowance when sold with a unit.

Single pump = 15 GPM @ 20' of head pressure; Dual pumps = 15 GPM @ 40' of head pressure.

The Factory recommends a pressure drop calculation be performed on loop design/installation.

***NOTE: Requires adaptor fitting set for loop connection. Hose kit includes adaptor set for hose/unit connections.**

Double O-ring Adaptor Fittings, Set of Two (One Set Required for All Flow Controllers for Loop Connection)		
Fusion	AFC6F	1.25" PE Socket Fusion
	AFC5F	1.00" PE Socket Fusion
Insert	AFC6I	1.25" Brass Barb Insert
	AFC4I	1.00" Brass Barb Insert
Cam	AFC4C	1.00" Cam lever - for flush connections
Thread	AFC4T	1.00" MPT Brass Thread

Flow Controller - Hose Kits & Fittings		
Hose Kit	AHK5EC	Includes double O-Ring x 1.00" barb insert for connection to Flow Controller, 1.00" MPT x 1.00" barb insert el w/PT port for unit connection, & 10' of 1.00" rubber hose.
Additional Hose	ARH510	10' of 1.00" Rubber Hose
	ARH550	50' of 1.00" Rubber Hose

CLOSED LOOP ACCESSORIES



Flow Controller
Double O-Ring Connections



AFC5F



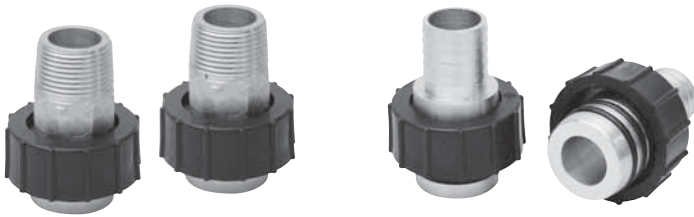
AFC6F



AFC4C



Hose Kit
AHK5EC



AFC4T

AFC4I



Fusion x MPT
GFMA65



Elbow w/PT port
69183134

OPEN LOOP ACCESSORIES

Item	Part Number	Description
Solenoid & Motorized Valves		
Valves are used with open loop systems in conjunction with a flow regulator.	AVSP5	1.00" FPT, 24 VAC-Solenoid Valve, Plastic
	AVSB5	1.00" FPT, 24 VAC-Solenoid Valve, Brass
	AVMB4	0.75" FPT, 24 VAC-Motorized Valve, Brass w/end switch safety controls
	AVMB5	1" SWT, 24 VAC-Motorized Valve, Brass w/end switch safety controls
	AVMB-PH	Powerhead

Flow Regulators		
Flow Regulators are used with open loop systems in conjunction with a solenoid valve. System requirements are 1.5 to 2.0 GPM/ton for open loop applications. Note: use ball valve downstream to quiet operation.	AFRV*	2 GPM-10 GPM are Brass 0.75" FPT x 0.75 FPT * Specify GPM when ordering. Example 6 gpm = AFR6 - Call Factory for pricing and availability for larger than 9 gpm

Pressure/Temperature Ports		
Used for accessing water pressure and temperature	70022002	Brass 0.25" MPT - Qty. 1
	70022003	Brass 0.50" MPT - Qty. 1

Open Loop Accessory Notes:

- Solenoid/Motorized valves are to be located in Leaving water side piping
- Flow Regulators are to be located after Solenoid/Motorized valve
- Pressure/Temperature Ports (P/T fittings) should always be located on unit water coax inlet/outlet to provide unit performance data access
- P/T fittings - choose either .25" or .50" diameter, .25" dia. works with 90 deg. brass swivel fitting, 69183134
- Two stage units should include Open Loop Accessories for each water coax



Plastic Solenoid Valve - AVSP5



Brass Solenoid Valve - AVSB5



P/T Plug
70022002
& 70022003



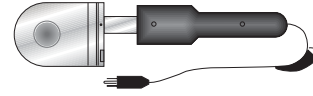
Brass Motorized Valve - AVMB5



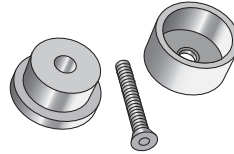
Flow Regulator AFRV*

LOOP FUSION TOOLS

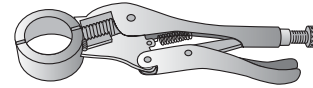
Part Number	Description
Heating Tool	
HVTD48	Fusion Tool, Double Socket Face



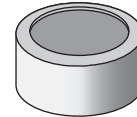
Part Number	Description
Socket Face	
HSF4P	0.75" IPS
HSF5P	1.00" IPS
HSF6P	1.25" IPS
HSF8P	2.00" IPS



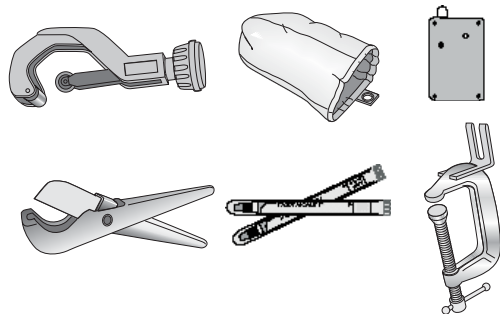
Part Number	Description
Cold Ring	
HCR4P	0.75" IPS
HCR5P	1.00" IPS
HCR6P	1.25" IPS
HCR8P	2.00" IPS



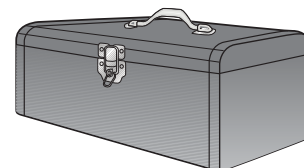
Part Number	Description
Depth Gauge	
HDG4P	0.75" IPS
HDG5P	1.00" IPS
HDG6P	1.25" IPS
HDG8P	2.00" IPS



Part Number	Description
Fusion Tool Accessories	
HMB	Fusion Tool Mounting Bracket
HFT	Fusion Timer
HHB	Fusion Tool Cover
HS500	Tempstik 500°F
HS525	Tempstik 525°F
HCT6P	1.25" Chamfer Tool
HCT8P	2.0" Chamfer Tool
HAK7	Kwik Cutter up to 1.25" IPS



Part Number	Description
Complete Fusion Kits	
HHAK46WDP	0.75" & 1.25" IPS - Double
HHAK468WDP	0.75", 1.25" & 2.00" IPS - Double



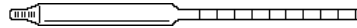
ADDITIONAL TOOLS

Service Tools

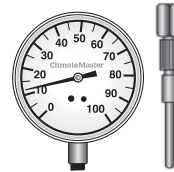
Item	Part Number	Description
Temperature Measurement	ADT160	Digital Thermometer for use with P/T Ports
Pressure Measurement	APG100	Pressure Gauge, 0-100 psi
Gauge Probe Adapter	APTGA	P/T Port Adapter for use with APG100
Alcohol Anti-Freeze Tester (.9-1)	AHYDA	Specific Gravity Hydrometer
Glycol Anti-Freeze Tester (1-1.07)	AHYDG	Specific Gravity Hydrometer
Control Checker	ATS007	Monitor/checks safety controls



Digital Thermometer



Anti-Freeze Tester



Pressure Gauge and Adapter

Performance Data AHRI Standard Conditions

Model	Stage	Airflow CFM	Ground Water Heat Pump Conditions					Ground Loop Heat Pump Conditions				
			Entering Water Temp	Net Sensible Capacity Btuh	Net Latent Capacity Btuh	Total Capacity Btuh	EER Btuh/W	Entering Water Temp	Net Sensible Capacity Btuh	Net Latent Capacity Btuh	Total Capacity Btuh	EER Btuh/W
			RPVW/ H025	1	725	59°F	16,850	5,150	22,000	30.6	68°F	16,650
	2	850	59°F	20,800	7,900	28,700	24.3	77°F	19,950	6,450	26,400	18.3
RPVW/ H036	1	1000	59°F	24,000	6,000	30,000	31.3	68°F	23,600	5,100	28,700	26.8
	2	1250	59°F	30,000	11,000	41,000	22.8	77°F	28,800	9,200	38,000	18.0
RPVW/ H048	1	1300	59°F	30,100	10,400	40,500	28.5	68°F	29,800	9,600	39,400	24.7
	2	1550	59°F	38,050	16,350	54,400	22.3	77°F	36,550	13,850	50,400	17.7
RPVW/ H062	1	1500	59°F	40,800	10,900	51,700	29.5	68°F	39,850	9,750	49,600	25.1
	2	1825	59°F	50,750	17,650	68,400	21.8	77°F	49,550	15,050	64,600	17.3
RPVW/ H069	1	1500	59°F	44,050	15,550	59,600	24.3	68°F	42,850	14,650	57,500	21.2
	2	1950	59°F	54,900	22,000	76,900	19.7	77°F	52,750	18,650	71,400	16.0

All ratings based upon operation at lower voltage of dual voltage rated models
Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature
Heating capacities based upon 68°F DB, 59°F WB entering air temperature

Performance Data AHRI Standard Conditions

Model	Stage	Airflow CFM	Ground Water Heat Pump Conditions			Ground Loop Heat Pump Conditions		
			Entering Water Temp	Total Capacity Btuh	COP W/W	Entering Water Temp	Total Capacity Btuh	COP W/W
			RPVW/ H025	1	825	50°F	18,400	5.0
	2	950	50°F	25,500	4.7	32°F	19,600	3.9
RPVW/ H036	1	1000	50°F	24,600	5.0	41°F	21,900	4.4
	2	1250	50°F	36,500	4.6	32°F	28,800	3.9
RPVW/ H048	1	1400	50°F	35,200	5.0	41°F	31,000	4.5
	2	1650	50°F	48,100	4.6	32°F	37,300	3.9
RPVW/ H062	1	1650	50°F	41,600	4.6	41°F	37,300	4.2
	2	2050	50°F	59,400	4.3	32°F	47,800	3.8
RPVW/ H069	1	1600	50°F	51,500	4.2	41°F	45,200	3.8
	2	2100	50°F	70,000	4.2	32°F	53,900	3.5

All ratings based upon operation at lower voltage of dual voltage rated models
Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature
Heating capacities based upon 68°F DB, 59°F WB entering air temperature

ECM BLOWER CONTROL

The ECM fan is controlled by the blower control board that converts thermostat signals and CFM settings into signals used by the ECM motor.

Comfort Control² Airflow Settings

When using a Comfort Control² thermostat, the dipswitches on the blower control board will have no effect on the airflow.

Cooling Airflow Settings. The Comfort Control² system sets the cooling airflow for optimum performance and comfort based on the unit size. Refer to ECM Airflow and Tap Settings Table for the cooling operation airflows.

Cooling Airflow Adjustment. The Comfort Control² system allows the user to tweak the cooling airflow +/- 15% to suit the installation. When using the Comfort Control² system, the airflow can only be adjusted using the Comfort Control² thermostat. To adjust the cooling airflow, go to the airflow adjustment menu and select the desired adjustment.

Cooling Mode Dehumidification. The Comfort Control² system controls are shipped with "On Demand Dehumidification" (ODD) turned OFF. On Demand Dehumidification may be activated from the Comfort Control² thermostat, when the thermostat has an on-board humidity sensor.

Heating Airflow Settings. The Comfort Control² system sets the heating airflow for optimum performance and comfort based on the unit size. Refer to ECM Airflow and Tap Settings Table for the heating operation airflows.

Heating Airflow Adjustment. The Comfort Control² system allows the user to tweak the heating airflow +/- 15% to suit the installation. When using the Comfort Control² system, the airflow can only be adjusted using the Comfort Control² thermostat. To adjust the heating airflow, go to the airflow adjustment menu and select the desired adjustment.

Auxiliary Heat Airflow Settings. The Comfort Control² system sets the auxiliary heat airflow to provide adequate airflow based on the unit size. Refer to ECM Airflow and Tap Settings Table for the auxiliary heat operation airflows. Airflow levels for auxiliary heat are fixed and cannot be field adjusted.

Constant Fan Airflow Settings. The Comfort Control² system sets the nominal constant fan airflow based on the unit size. Refer to ECM Airflow and Tap Settings Table for the nominal constant fan operation airflows.

Constant Fan Airflow Adjustment. The Comfort Control² system allows the user to tweak the constant fan airflow +/- 50% to suit the installation. When using the Comfort Control² system, the airflow can only be adjusted using the Comfort Control² thermostat. To adjust the constant fan airflow, go to the constant fan adjustment menu and select the desired adjustment.

Airflow Delay Profile. The Comfort Control² system uses factory configured blower on and off delays to increase energy efficiency and comfort. The airflow delay profiles for heating and cooling operation are shown in ECM Airflow and Tap Settings Table.

24VAC Thermostat Airflow Settings

When using a 24 VAC thermostat, the dipswitches on the blower control board select the heating, cooling, and constant fan operation airflows.

Cooling Airflow Settings. The cooling operation airflow setting is determined by the positions of dipswitches 1 and 2 on the blower control board when using a 24VAC thermostat. Refer to ECM Airflow and Tap Settings Table for the tap setting associated with each dipswitch setting, and to the ECM Blower Performance Data on page 14 for the associated airflows.

Heating Airflow Settings. The heating operation airflow setting is determined by the positions of dipswitches 3 and 4 on the blower control board when using a 24VAC thermostat. Refer to ECM Airflow and Tap Settings Table for the tap setting associated with each dipswitch setting, and to the ECM Blower Performance Data on page 14 for the associated airflows.

Airflow Adjustment. The cooling and heating airflow settings may be adjusted +/- 15% to suit the installation. The airflow levels are adjusted by the positions of dipswitches 5 and 6 on the blower control board when using a 24VAC thermostat. Refer to ECM Airflow and Tap Settings Table for the airflow adjustment setting associated with each dipswitch setting.

Auxiliary Heat Airflow Settings. The auxiliary heat airflow is fixed based on the size of the heat pump to provide adequate airflow. Refer to the ECM Blower Performance Data on page 14 for the auxiliary heat airflows.

Constant Fan Airflow Settings. The constant fan operation airflow setting is determined by the positions of dipswitches 1 and 2 on the blower control board when using a 24VAC thermostat. Refer to ECM Airflow and Tap Settings Table for the tap setting associated with each dipswitch setting, and to the ECM Blower Performance Data on page 14 for the associated airflows.

Cooling Mode Dehumidification. The heat pump is shipped with the "On Demand Dehumidification" (ODD) turned OFF. On Demand Dehumidification is used in conjunction with a traditional 24VAC thermostat equipped with an on-board humidity sensor. ODD operation is activated by setting dipswitch 7 on the blower control board to the ON position. ODD operation is controlled by the indoor humidity sensor at the thermostat. The heat pump is programmed to provide maximum efficiency and optimum humidity removal. When high humidity is detected, the cooling airflow is reduced. Refer to ECM Airflow and Tap Settings Table for the cooling airflow reduction for each unit size. Operation for ODD is:

Normal Humidity (humidity BELOW the dehumidification setpoint): Thermostat will apply a 24VAC signal to the ODD terminal, and the blower will operate at the normal airflow for cooling operation.

High Humidity (humidity ABOVE the dehumidification setpoint): Thermostat will apply no signal to the ODD terminal, and the blower will operate at reduced airflows for cooling operation.

ECM BLOWER CONTROL

ECM Airflow and Tap Settings

Comfort Control² Airflow Settings

Model	Cooling Mode		Dehumid Mode		Heating Mode		Fan	Aux
	Stg 1	Stg 2	Stg 1	Stg 2	Stg 1	Stg 2		Heat
025	730	850	570	660	820	950	700	990
036	1000	1250	780	975	1000	1250	825	1400
048	1300	1550	1010	1200	1390	1650	1050	1700
062	1480	1825	1150	1420	1660	2050	1250	2100
069	1480	1950	1150	1520	1660	2100	1250	2300

Cooling Settings

Tap	DIP Switch	
	S1	S2
Setting 1	ON	ON
Setting 2	OFF	ON
Setting 3	ON	OFF
Setting 4	OFF	OFF

Heating Settings

Tap	DIP Switch	
	S3	S4
Setting 1	ON	ON
Setting 2	OFF	ON
Setting 3	ON	OFF
Setting 4	OFF	OFF

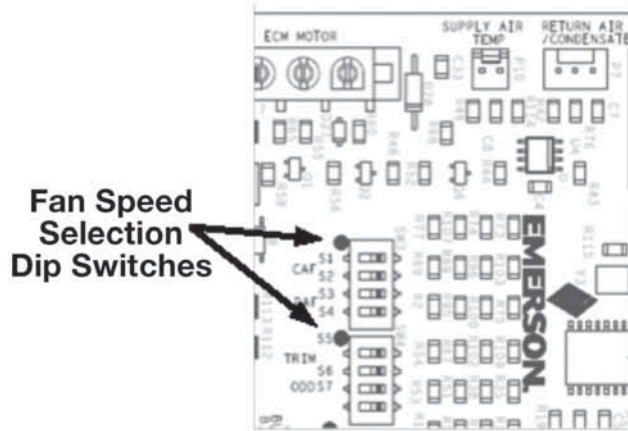
Adjustment Settings

Tap	DIP Switch	
	S5	S6
Setting Normal	OFF	OFF
Setting + 15%	ON	OFF
Setting - 15%	OFF	ON
Setting Normal	ON	ON

ODD Adjustment

Model	Airflow
025	78%
036	78%
048	78%
062	78%
069	78%

ECM Blower Settings



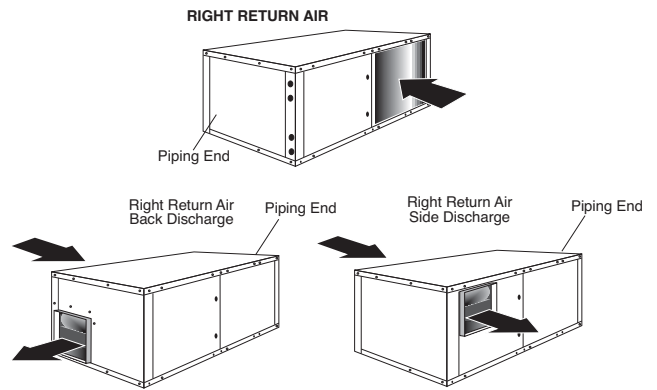
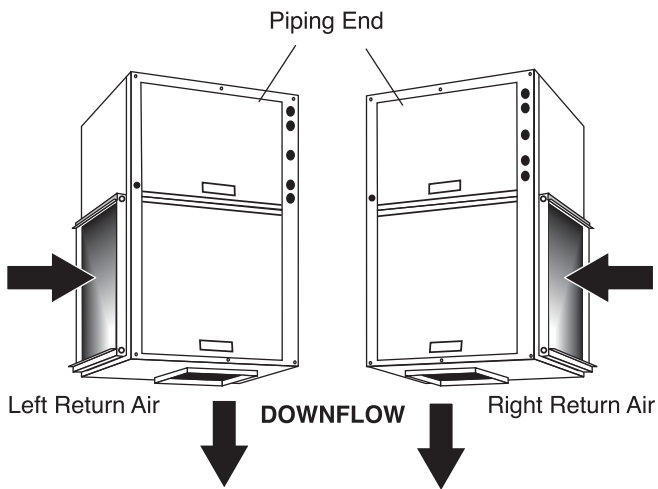
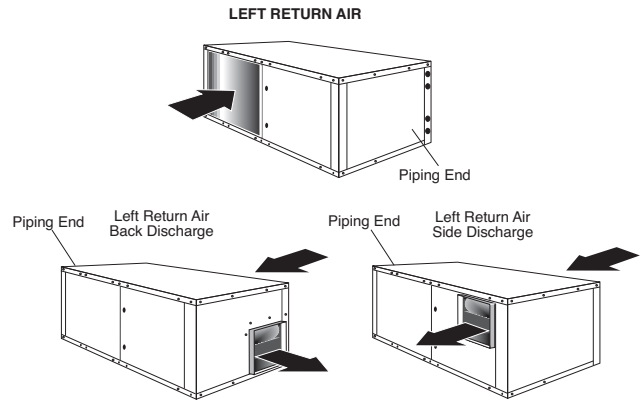
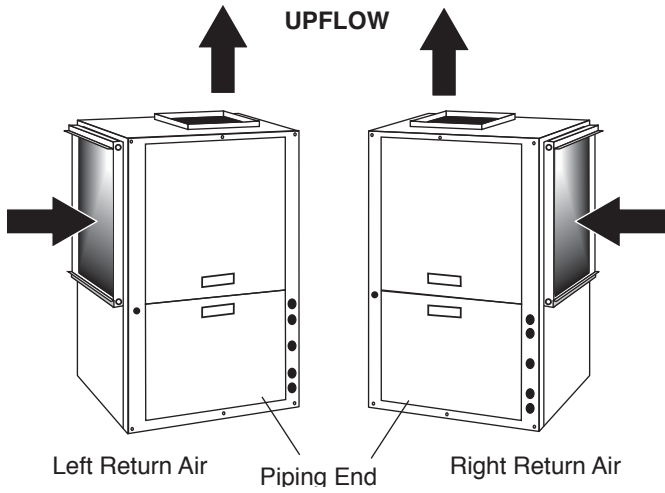
RPV SERIES ECM BLOWER PERFORMANCE DATA

Airflow in CFM with wet coil and clean air filter													Residential Units Only	
Model	Max ESP (in. wg)	Fan Motor (hp)	Tap Setting	Cooling Mode			Dehumid Mode			Heating Mode			AUX CFM	Aux/ Emerg Mode
				Stg 1	Stg 2	Fan	Stg 1	Stg 2	Fan	Stg 1	Stg 2	Fan		
025	0.50	1/2	4	810	950	400	630	740	400	920	1060	400	4	950
	0.50	1/2	3	725	850	360	560	660	360	825	950	360	3	950
	0.50	1/2	2	620	730	310	490	570	310	710	820	310	2	950
	0.50	1/2	1	520	610	260				600	690	260	1	950
036	0.50	1/2	4	1120	1400	560	870	1090	560	1120	1400	560	4	1350
	0.50	1/2	3	1000	1250	500	780	980	500	1000	1250	500	3	1350
	0.50	1/2	2	860	1080	430	670	840	430	860	1080	430	2	1350
	0.50	1/2	1	730	900	365				730	900	365	1	1350
048	0.75	1	4	1460	1730	730	1140	1350	720	1560	1850	730	4	1660
	0.75	1	3	1300	1550	650	1020	1210	650	1400	1650	650	3	1660
	0.75	1	2	1120	1330	560	870	1040	560	1200	1430	560	2	1660
	0.75	1	1	940	1120	470				1010	1200	470	1	1660
062	0.75	1	4	1670	2050	835	1300	1600	835	1860	2280	835	4	2040
	0.75	1	3	1500	1825	750	1160	1430	750	1650	2050	750	3	2040
	0.75	1	2	1280	1580	640	1000	1230	640	1430	1750	640	2	2040
	0.75	1	1	1080	1320	540				1200	1470	540	1	2040
069	0.75	1	4	1620	2190	810	1270	1650	810	1690	2230	810	4	2100
	0.75	1	3	1500	1950	750	1170	1520	750	1600	2100	750	3	2100
	0.75	1	2	1400	1830	700	1100	1420	700	1400	1850	700	2	2100
	0.75	1	1	1320	1700	660				1240	1620	660	1	2100

Factory shipped on Tap Setting 2
 Airflow is controlled within +/- 5% up to Max ESP shown with wet coil and standard 1" fiberglass filter
 Do not select Dehumidification mode if HP CFM is on setting 1
 All units AHRI/ISO/ASHRAE 13256-1 rated HP (Cooling) Delay (Heating) CFM Setting 3

Note: See the ECM Blower Control section for information on setting taps.

DIMENSIONAL DATA



DIMENSIONS - VERTICAL UPFLOW

Vertical Upflow Model		Overall Cabinet		
		A Width	B Depth	C Height
025	in [cm]	22.4 [56.8]	25.6 [65.1]	48.5 [123.2]
036	in [cm]	25.4 [64.5]	30.6 [77.8]	50.5 [128.3]
048	in [cm]	25.4 [64.5]	30.6 [77.8]	54.5 [138.4]
062	in [cm]	25.4 [64.5]	30.6 [77.8]	58.5 [148.6]
069	in [cm]	25.4 [64.5]	30.6 [77.8]	58.5 [148.6]

Vertical Upflow Model		Water Connections						
		1	2	3	4	5		
		D In	E Out	F HWG IN	G HWG Out	H Condensate	Loop Water IPT	HWG IPT
025	in [cm]	2.1 [5.2]	10.0 [25.4]	13.9 [35.2]	16.9 [42.9]	7.8 [19.8]	1" Swivel	1" Swivel
036	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	7.8 [19.8]	1" Swivel	1" Swivel
048	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	7.8 [19.8]	1" Swivel	1" Swivel
062	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	7.8 [19.8]	1" Swivel	1" Swivel
069	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	7.8 [19.7]	1" Swivel	1" Swivel

Vertical Upflow Model		Electrical Knockouts		
		J 1/2"	K 1/2"	L 3/4"
		Low Voltage	External Pump	Power Supply
025	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
036	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
048	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
062	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
069	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]

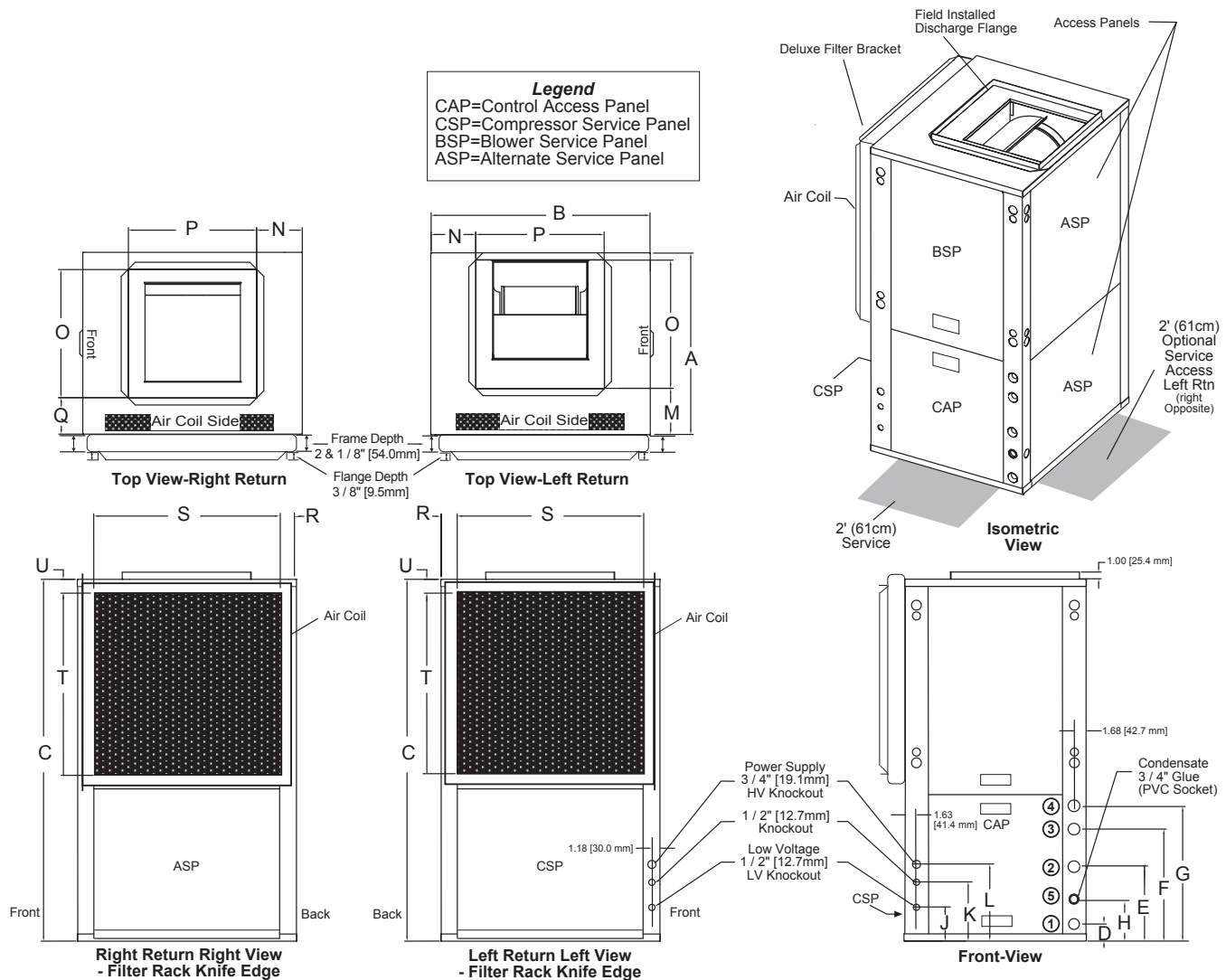
Condensate is 3/4" PVC female glue socket and is switchable from front to side.

Unit shipped with deluxe duct collar/filter rack extending from unit 3" [7.6cm] and is suitable for duct connection.

Discharge flange is field installed.

DIMENSIONS - VERTICAL UPFLOW

Vertical Upflow Model		Discharge Connection Duct Flange Installed (+/- 0.10 in, +/- 2.5mm)					Return Connection Standard Deluxe Filter Rack (+/- 0.10 in, +/- 2.5mm)			
		M Left Return	N	O Supply Width	P Supply Depth	Q Right Return	R	S Return Depth	T Return Height	U
025	in [cm]	7.8 [18.3]	5.8 [14.8]	14.0 [35.6]	14.0 [35.6]	4.9 [12.4]	1.7 [4.2]	22.2 [56.4]	26.2 [66.4]	1.5 [3.9]
036	in [cm]	6.4 [16.1]	6.3 [16.0]	18.0 [45.7]	18.0 [45.7]	5.3 [13.5]	2.1 [5.4]	27.1 [68.9]	26.1 [66.4]	1.5 [3.9]
048	in [cm]	6.4 [16.1]	6.3 [16.0]	18.0 [45.7]	18.0 [45.7]	5.3 [13.5]	2.1 [5.4]	27.1 [68.9]	30.1 [76.5]	1.5 [3.9]
062	in [cm]	6.4 [16.1]	6.3 [16.0]	18.0 [45.7]	18.0 [45.7]	5.3 [13.5]	2.1 [5.4]	27.1 [68.9]	34.1 [86.7]	1.5 [3.9]
069	in [cm]	6.4 [16.1]	6.3 [16.0]	18.0 [45.7]	18.0 [45.7]	5.3 [13.5]	2.1 [5.4]	27.1 [68.9]	34.1 [86.7]	1.5 [3.9]



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DIMENSIONS - VERTICAL DOWNFLOW

Vertical Downflow Model		Overall Cabinet		
		A Width	B Depth	C Height
025	in [cm]	22.4 [56.8]	25.6 [65.1]	52.5 [133.4]
036	in [cm]	25.4 [64.5]	30.6 [77.8]	54.5 [138.4]
048	in [cm]	25.4 [64.5]	30.6 [77.8]	58.5 [148.6]
062	in [cm]	25.4 [64.5]	30.6 [77.8]	62.5 [158.8]
069	in [cm]	25.4 [64.5]	30.6 [77.8]	62.5 [158.8]

Vertical Downflow Model		Water Connections						
		1	2	3	4	5		
		D In	E Out	F HWG IN	G HWG Out	H Condensate	Loop Water IPT	HWG IPT
025	in [cm]	17.2 [43.7]	9.3 [23.6]	5.4 [13.7]	2.4 [6.1]	3.6 [9.2]	1" Swivel	1" Swivel
036	in [cm]	17.9 [45.5]	10.5 [26.7]	5.7 [14.5]	2.4 [6.1]	3.6 [9.2]	1" Swivel	1" Swivel
048	in [cm]	17.9 [45.5]	10.5 [26.7]	5.7 [14.5]	2.4 [6.1]	3.6 [9.2]	1" Swivel	1" Swivel
062	in [cm]	17.9 [45.5]	10.5 [26.7]	5.7 [14.5]	2.4 [6.1]	3.6 [9.2]	1" Swivel	1" Swivel
069	in [cm]	17.9 [45.5]	10.5 [26.7]	5.7 [14.5]	2.4 [6.1]	3.6 [9.2]	1" Swivel	1" Swivel

Vertical Downflow Model		Electrical Knockouts		
		J 1/2"	K 1/2"	L 3/4"
		Low Voltage	External Pump	Power Supply
025	in [cm]	15.7 [39.9]	13.2 [33.5]	10.7 [27.2]
036	in [cm]	17.7 [45.0]	15.2 [38.6]	12.7 [32.3]
048	in [cm]	17.7 [45.0]	15.2 [38.6]	12.7 [32.3]
062	in [cm]	17.7 [45.0]	15.2 [38.6]	12.7 [32.3]
069	in [cm]	17.7 [45.0]	15.2 [38.6]	12.7 [32.3]

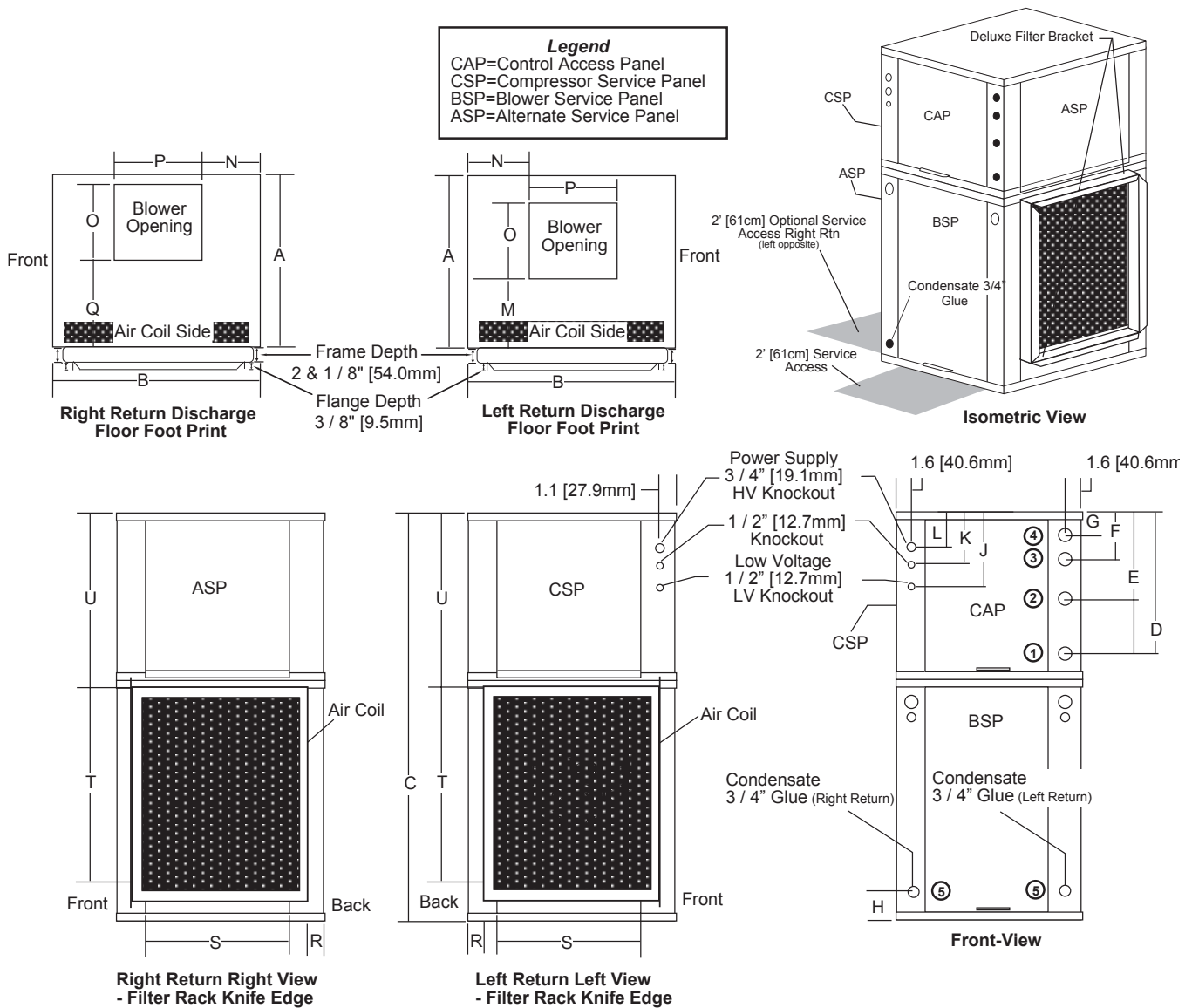
Condensate is 3/4" PVC female glue socket and is switchable from front to side.

Unit shipped with deluxe duct collar/filter rack extending from unit 3" [7.6cm] and is suitable for duct connection.

Downflow unit does not have discharge flange, and is rated for zero clearance installation.

DIMENSIONS - VERTICAL DOWNFLOW

Vertical Downflow Model		Discharge Connection Duct Flange Installed (+/- 0.10 in, +/- 2.5mm)					Return Connection Standard Deluxe Filter Rack (+/- 0.10 in, +/- 2.5mm)			
		M Left Return	N	O Supply Width	P Supply Depth	Q Right Return	R	S Return Depth	T Return Height	U
025	in [cm]	6.7 [17.1]	8.4 [21.4]	9.9 [25.3]	9.1 [23.0]	10.8 [27.4]	1.7 [4.2]	22.2 [56.4]	26.2 [66.4]	21.2 [53.9]
036	in [cm]	7.4 [18.7]	9.0 [22.9]	13.1 [33.3]	12.9 [32.7]	10.4 [26.5]	1.7 [4.2]	27.1 [68.9]	26.1 [66.4]	23.2 [59.0]
048	in [cm]	7.4 [18.7]	9.0 [22.9]	13.1 [33.3]	12.9 [32.7]	10.4 [26.5]	1.7 [4.2]	27.1 [68.9]	30.1 [76.5]	23.2 [59.0]
062	in [cm]	7.4 [18.7]	9.0 [22.9]	13.1 [33.3]	12.9 [32.7]	10.4 [26.5]	1.7 [4.2]	27.1 [68.9]	34.1 [86.7]	23.2 [59.0]
069	in [cm]	7.4 [18.7]	9.0 [22.9]	13.1 [33.3]	12.9 [32.7]	10.4 [26.5]	1.7 [4.2]	27.1 [68.9]	34.1 [86.7]	23.2 [59.0]



DIMENSIONS - HORIZONTAL

Horizontal Model		Overall Cabinet		
		A Width	B Depth	C Height
025	in [cm]	22.4 [56.8]	62.2 [158.0]	19.3 [48.9]
036	in [cm]	25.4 [64.5]	71.2 [180.8]	21.3 [54.0]
048	in [cm]	25.4 [64.5]	76.2 [193.5]	21.3 [54.0]
062	in [cm]	25.4 [64.5]	81.2 [206.2]	21.3 [54.0]
069	in [cm]	25.4 [64.5]	81.2 [206.2]	21.3 [54.0]

Horizontal Model		Water Connections						
		1	2	3	4	5		
		D In	E Out	F HWG IN	G HWG Out	H Condensate	Loop Water IPT	HWG IPT
025	in [cm]	2.1 [5.2]	10.0 [25.4]	13.9 [35.2]	16.9 [42.9]	0.6 [1.5]	1" Swivel	1" Swivel
036	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	0.6 [1.5]	1" Swivel	1" Swivel
048	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	0.6 [1.5]	1" Swivel	1" Swivel
062	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	0.6 [1.5]	1" Swivel	1" Swivel
069	in [cm]	3.4 [8.6]	10.8 [27.5]	15.6 [39.7]	18.9 [47.9]	0.6 [1.5]	1" Swivel	1" Swivel

Horizontal Model		Electrical Knockouts		
		J 1/2"	K 1/2"	L 3/4"
		Low Voltage	External Pump	Power Supply
025	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
036	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
048	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
062	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]
069	in [cm]	3.6 [9.2]	6.1 [15.6]	8.6 [21.9]

Condensate is 3/4" IPT.

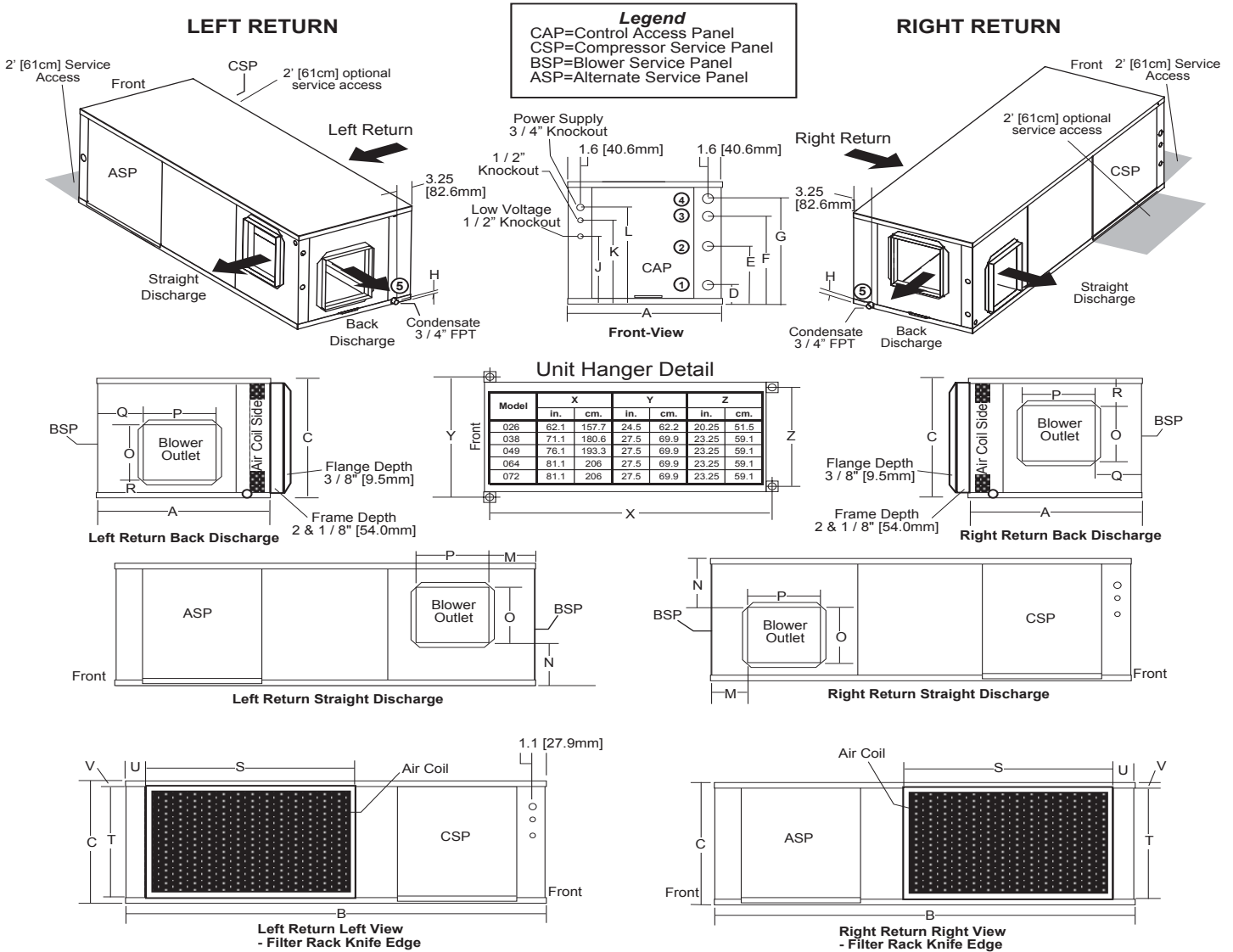
Unit shipped with deluxe duct collar/filter rack extending from unit 3" [7.6cm] and is suitable for duct connection.

Discharge flange and hanger brackets are factory installed.

DIMENSIONS - HORIZONTAL

Horizontal Model		1 Discharge Connection Duct Flange Installed (+/- 0.10 in, +/- 2.5mm)						Return Connection Standard Deluxe Filter Rack (+/- 0.10 in, +/- 2.5mm)			
		M	N	O Supply Width	P Supply Depth	Q	R	S Return Depth	T Return Height	U	V
025	in [cm]	3.6 [9.3]	2.0 [5.1]	12.5 [31.8]	15.5 [39.4]	3.6 [9.2]	2.0 [5.2]	33.8 [85.8]	16.2 [41.0]	2.3 [5.8]	1.5 [3.9]
036	in [cm]	3.1 [7.9]	1.2 [3.1]	19.0 [48.3]	17.5 [44.5]	3.1 [7.9]	1.0 [2.6]	34.8 [88.3]	18.2 [46.1]	3.1 [7.8]	1.5 [3.9]
048	in [cm]	3.1 [7.9]	1.2 [3.1]	19.0 [48.3]	17.5 [44.5]	3.1 [7.9]	1.0 [2.6]	39.8 [101.0]	18.2 [46.1]	3.1 [7.8]	1.5 [3.9]
062	in [cm]	3.1 [7.9]	1.2 [3.1]	19.0 [48.3]	17.5 [44.5]	3.1 [7.9]	1.0 [2.6]	44.8 [113.7]	18.2 [46.1]	3.1 [7.8]	1.5 [3.9]
069	in [cm]	3.1 [7.9]	1.2 [3.1]	19.0 [48.3]	17.5 [44.5]	3.1 [7.9]	1.0 [2.6]	44.8 [113.7]	18.2 [46.1]	3.1 [7.8]	1.5 [3.9]

1 Discharge connection will change when using the accessory auxiliary electric heat package. Refer to the heater IOM for details.



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ELECTRICAL & PHYSICAL DATA TABLES

Electrical Data (Preliminary)

Model Number RPV	Phase Frequency (Hz) Voltage (Volts)	Compressor		Fan Motor FLA	HWG Pump FLA	Ext Loop FLA	Total Unit FLA	Min Circ Amp	Max Fuse/ HACR
		RLA	LRA						
025	1-60-208/230	10.3	52.0	4.3	0.4	4.0	18.9	21.5	30
036	1-60-208/230	16.7	82.0	4.3	0.4	4.0	25.3	29.5	45
048	1-60-208/230	21.2	96.0	7.0	0.4	4.0	32.5	37.8	50
062	1-60-208/230	25.6	118.0	7.0	0.4	4.0	37.0	43.4	60
069	1-60-208/231	27.2	150.0	7.0	0.4	4.0	38.6	45.4	70

Physical Data

Model	025	036	048	062	069
Compressor (1 Each)					
Factory Charge R410a (oz)	58	78	81	144	156
ECM Fan Motor & Blower					
Fan Motor Type & Speeds	ECM Variable Speed				
Fan Motor, hp	1/2	1/2	1	1	1
Blower Wheel Size (Dia x W), in	9 x 7	11 x 10	11 x 10	11 x 10	11 x 10
Coax and Water Piping					
Water Connections Size -Swivel - in.	1"	1"	1"	1"	1"
HWG Connectiosn Size - Swivel - in.	1"	1"	1"	1"	1"
Vertical Upflow/Downflow					
Air Coil Dimensions (H x W), in.	28 x 20	28 x 25	32 x 25	36 x 25	37 x 25
Filter Standard - 2 in Pleated MERV 11 Throwaway, (in)	28 x 24	28x29.5	32x29.5	36x29.5	36x29.5
Weight - Operating, lb	266.0	327.0	416.0	443.0	443.0
Weight - Packaged, lb	276.0	337.0	426.0	453.0	453.0
Horizontal					
Air Coil Dimensions (H x W), in. [mm]	18 x 31	20 x 35	20 x 40	20 x 45	21 x 45
Filter Standard - 2 in Pleated MERV 11 Throwaway, (in)	2 - 18 x 18	1 - 12 x 20 1 - 20 x 25	1 - 18 x 20 1 - 20 x 24	2 - 20 x 24	2 - 20 x 24
Weight - Operating, lb [kg]	266.0	327.0	416.0	443.0	443.0
Weight - Packaged, lb [kg]	276.0	337.0	426.0	453.0	453.0

NOTES

NOTES

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

**Rheem Heating,
Cooling and
Water Heating**

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Ft. Smith, AR 72908
(405) 357-0409



"In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice."