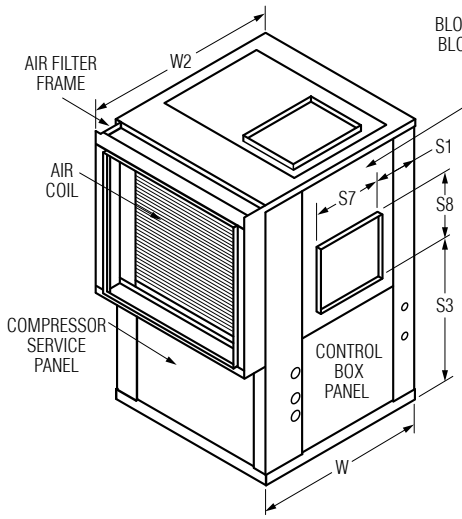
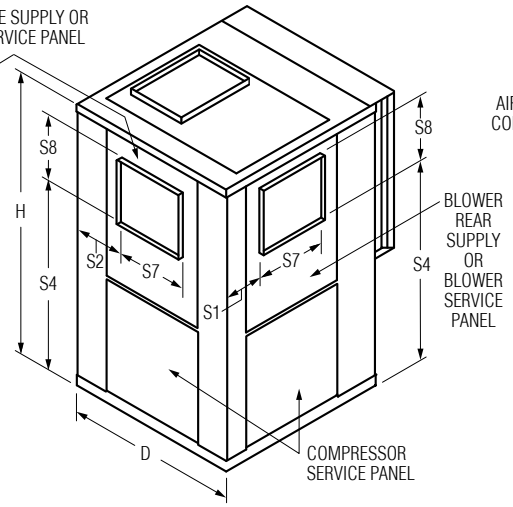
Engineered Comfort

SERENITY VERTICAL PACKAGED WATER SOURCE HEAT PUMP WITH ECM MOTOR AND R-454B REFRIGERANT • LEFT RETURN
MODEL SERIES: 44PV-B • UNIT SIZES 6 – 60



LEFT RETURN - FRONT



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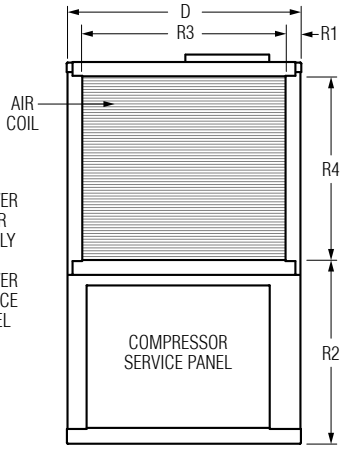
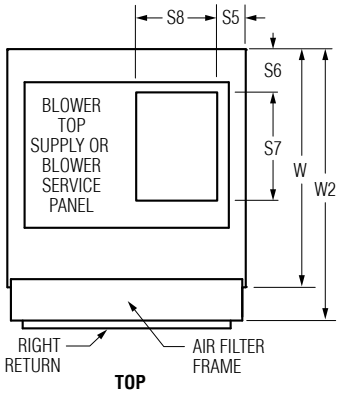


LEFT RETURN



TOP

AHRI CERTIFIED® www.ahridirectory.org
Water Source HP
ANSI/AHRI/ASHRAE/ISO13256

C ETL LISTED US
Intertek

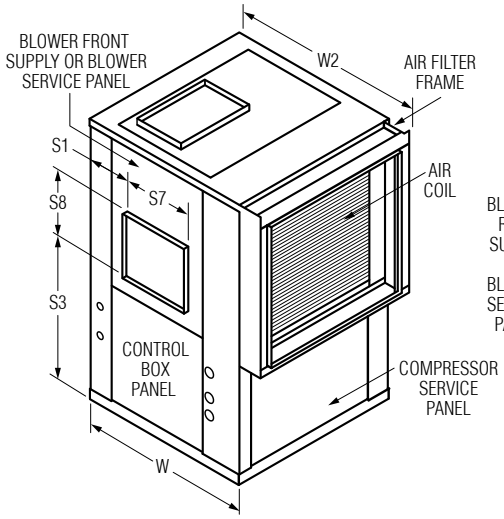
Dimensional Data for Standard Units

Unit Size	W	W2	D	H	S1	S2	S3	S4	S5	S6	S7	S8	R1	R2	R3	R4	Filter Size
6, 9, 12	19 (483)	22 1/8 (562)	19 (483)	24 (610)	1 11/16 (42)	3 1/2 (80)	12 1/2 (317)	15 1/4 (388)	4 3/4 (120)	1 11/16 (42)	10 11/16 (272)	6 3/4 (171)	1 3/8 (34)	13 3/16 (335)	15 5/16 (389)	9 1/2 (241)	12 x 16 (305 x 406)
15	22 (559)	25 1/8 (638)	22 (559)	36 (914)	2 5/16 (58)	4 9/16 (116)	17 1/2 (445)	25 1/2 (647)	3 (76)	4 5/16 (109)	11 7/8 (302)	8 (204)	1 3/8 (34)	17 5/16 (439)	19 5/16 (490)	17 3/8 (442)	20 x 20 (508 x 508)
18	22 (559)	25 1/8 (638)	22 (559)	36 (914)	3 1/16 (77)	5 5/16 (135)	17 1/2 (445)	24 1/4 (616)	3 (76)	4 5/16 (109)	10 3/8 (264)	9 1/4 (235)	1 3/8 (34)	17 5/16 (439)	19 5/16 (490)	17 3/8 (442)	20 x 20 (508 x 508)
24	22 (559)	25 1/8 (638)	22 (559)	40 (1016)	4 1/16 (103)	6 5/16 (160)	20 1/2 (521)	25 3/4 (653)	2 1/2 (64)	5 11/16 (145)	10 3/16 (259)	11 3/4 (299)	1 3/8 (34)	21 5/16 (541)	19 5/16 (490)	17 3/8 (442)	20 x 20 (508 x 508)
30	25 (635)	28 1/8 (715)	26 (660)	40 (1016)	4 1/16 (103)	6 13/16 (173)	20 1/2 (521)	26 7/8 (682)	4 1/2 (114)	6 1/16 (154)	11 (280)	10 5/8 (271)	1 3/8 (34)	21 5/16 (541)	23 5/16 (592)	17 3/8 (442)	20 x 24 (508 x 610)
36	25 (635)	28 1/8 (715)	26 (660)	45 (1143)	4 1/16 (103)	7 5/16 (185)	22 (559)	30 3/4 (780)	2 3/4 (70)	6 1/16 (154)	11 1/2 (289)	11 3/4 (299)	1 3/8 (34)	22 5/16 (566)	23 5/16 (592)	21 3/8 (544)	24 x 24 (610 x 610)
42	25 (635)	28 1/8 (715)	26 (660)	45 (1143)	3 9/16 (90)	6 13/16 (173)	22 (559)	30 3/4 (780)	2 3/4 (70)	5 9/16 (141)	12 1/8 (308)	11 3/4 (299)	1 3/8 (34)	22 5/16 (566)	23 5/16 (592)	21 3/8 (544)	24 x 24 (610 x 610)
48	25 (635)	28 1/8 (715)	32 (813)	45 (1143)	3 9/16 (90)	9 13/16 (249)	22 (559)	30 3/4 (780)	5 3/4 (146)	5 9/16 (141)	12 1/8 (308)	11 3/4 (299)	1 3/8 (34)	22 5/16 (566)	29 5/16 (744)	21 3/8 (544)	24 x 30 (610 x 762)
60	25 (635)	28 1/8 (715)	32 (813)	45 (1143)	3 9/16 (90)	9 13/16 (249)	22 (559)	28 11/16 (728)	5 3/4 (146)	5 9/16 (141)	12 5/8 (321)	13 13/16 (352)	1 3/8 (34)	22 5/16 (566)	29 5/16 (744)	21 3/8 (544)	24 x 30 (610 x 762)

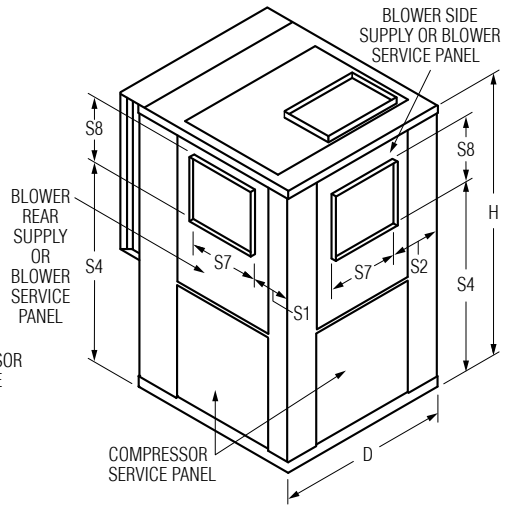
SCHEDULE TYPE:	Page 1 of 4. Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**4 - 17 - 26**	**44**	**3 - 31 - 26**	**44PVB-1**

Engineered Comfort

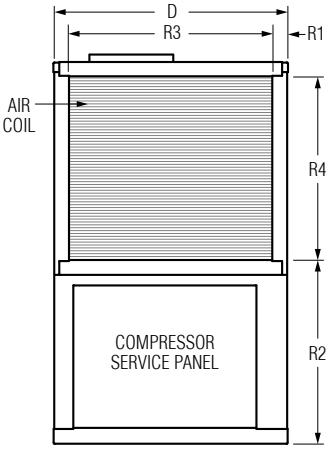
SERENITY VERTICAL PACKAGED WATER SOURCE HEAT PUMP WITH ECM MOTOR
RIGHT RETURN
MODEL SERIES: 44PV-B • UNIT SIZES 6 – 60



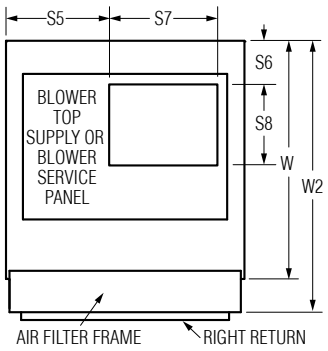
FRONT - RIGHT RETURN



SIDE - REAR



RIGHT RETURN



TOP

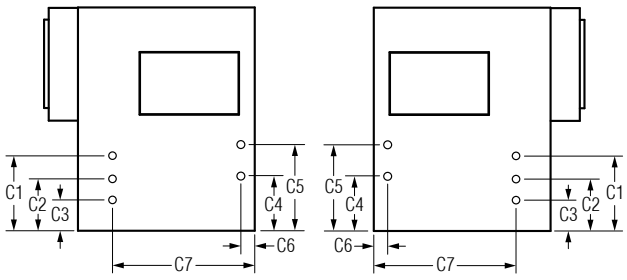
Dimensional Data for Standard Units

Unit Size	W	D	H	W2	S1	S2	S3	S4	S5	S6	S7	S8	R1	R2	R3	R4	Filter Size
6, 9, 12	19 (483)	19 (483)	24 (610)	22 1/8 (562)	1 11/16 (42)	3 1/2 (80)	12 1/2 (317)	15 1/4 (388)	7 1/2 (191)	1 11/16 (42)	10 11/16 (272)	6 3/4 (171)	1 3/8 (34)	13 3/16 (335)	15 5/16 (389)	9 1/2 (241)	12 x 16 (305 x 406)
15	22 (559)	22 (559)	36 (914)	25 1/8 (638)	2 5/16 (58)	4 9/16 (116)	17 1/2 (445)	25 1/2 (647)	10 15/16 (278)	2 5/16 (58)	11 7/8 (302)	8 (204)	1 3/8 (34)	17 5/16 (439)	19 5/16 (490)	17 3/8 (442)	20 x 20 (508 x 508)
18	22 (559)	22 (559)	36 (914)	25 1/8 (638)	3 1/16 (77)	5 5/16 (135)	17 1/2 (445)	24 1/4 (616)	9 3/4 (247)	3 1/16 (77)	10 3/8 (264)	9 1/4 (235)	1 3/8 (34)	17 5/16 (439)	19 5/16 (490)	17 3/8 (442)	20 x 20 (508 x 508)
24	22 (559)	22 (559)	40 (1016)	25 1/8 (638)	4 1/16 (103)	6 5/16 (160)	20 1/2 (521)	25 3/4 (653)	7 3/4 (196)	4 1/16 (103)	10 3/16 (259)	11 3/4 (299)	1 3/8 (34)	21 5/16 (541)	19 5/16 (490)	17 3/8 (442)	20 x 20 (508 x 508)
30	25 (635)	26 (660)	40 (1016)	28 1/8 (715)	4 1/16 (103)	6 13/16 (173)	20 1/2 (521)	26 7/8 (682)	10 13/16 (275)	4 1/16 (103)	11 (280)	10 5/8 (271)	1 3/8 (34)	21 5/16 (541)	23 5/16 (592)	17 3/8 (442)	20 x 24 (508 x 610)
36	25 (635)	26 (660)	45 (1143)	28 1/8 (715)	4 1/16 (103)	7 5/16 (185)	22 (559)	30 3/4 (780)	11 1/2 (291)	4 1/16 (103)	11 1/2 (289)	11 3/4 (299)	1 3/8 (34)	22 5/16 (566)	23 5/16 (592)	21 3/8 (544)	24 x 24 (610 x 610)
42	25 (635)	26 (660)	45 (1143)	28 1/8 (715)	3 9/16 (90)	6 13/16 (173)	22 (559)	30 3/4 (780)	11 1/2 (291)	3 9/16 (90)	12 1/8 (308)	11 3/4 (299)	1 3/8 (34)	22 5/16 (566)	23 5/16 (592)	21 3/8 (544)	24 x 24 (610 x 610)
48	25 (635)	32 (813)	45 (1143)	28 1/8 (715)	3 9/16 (90)	9 13/16 (249)	22 (559)	30 3/4 (780)	14 1/2 (367)	3 9/16 (90)	12 1/8 (308)	11 3/4 (299)	1 3/8 (34)	22 5/16 (566)	29 5/16 (744)	21 3/8 (544)	24 x 30 (610 x 762)
60	25 (635)	32 (813)	45 (1143)	28 1/8 (715)	3 9/16 (90)	9 13/16 (249)	22 (559)	28 11/16 (728)	12 3/8 (315)	3 9/16 (90)	12 5/8 (321)	13 13/16 (352)	1 3/8 (34)	22 5/16 (566)	29 5/16 (744)	21 3/8 (544)	24 x 30 (610 x 762)

SCHEDULE TYPE:	Page 2 of 4. Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**4 - 17 - 26**	**44**	**3 - 31 - 26**	**44PVB-1**

Engineered Comfort

SERENITY VERTICAL PACKAGED WATER SOURCE HEAT PUMP WITH ECM MOTOR LEFT AND RIGHT RETURN MODEL SERIES: 44PV-B • UNIT SIZES 6 – 60



LEFT RETURN COIL CONNECTIONS

RIGHT RETURN COIL CONNECTIONS

Dimensions Data - Coil Connections

Unit Size	C1 COND. DRAIN	C2 WATER OUT	C3 WATER IN	C4 POWER SUPPLY	C5 THERMO-STAT	C6 EDGE TO CONNECTIONS	C7 EDGE TO COND. DRAIN
6, 9, 12	8 1/16 (204)	5 9/16 (141)	3 5/16 (84)	5 15/16 (151)	9 1/4 (235)	1 1/2 (38)	15 1/4 (388)
15, 18	12 9/16 (319)	9 (228)	6 3/4 (171)	10 7/16 (265)	13 3/4 (350)	1 1/2 (38)	17 3/8 (442)
24	15 9/16 (395)	9 1/4 (234)	6 1/4 (158)	12 13/16 (326)	16 3/4 (426)	2 1/2 (64)	17 3/8 (442)
30	15 9/16 (395)	11 1/4 (285)	6 1/4 (158)	12 13/16 (326)	16 3/4 (426)	2 1/2 (64)	20 3/8 (518)
36	17 1/16 (434)	12 3/8 (314)	7 3/8 (314)	14 5/16 (364)	18 1/4 (464)	2 1/2 (64)	19 3/8 (493)
42	17 1/16 (434)	12 3/8 (314)	7 3/8 (314)	14 5/16 (364)	18 1/4 (464)	2 1/2 (64)	19 5/8 (498)
48	17 1/16 (434)	12 3/8 (314)	7 3/8 (314)	14 5/16 (364)	18 1/4 (464)	2 1/2 (64)	19 5/8 (498)
60	17 1/16 (434)	12 3/8 (314)	7 3/8 (314)	14 5/16 (364)	18 1/4 (464)	2 1/2 (64)	19 5/8 (498)

STANDARD FEATURES:

- Heat pump system
- Refrigerant circuit
- Copper tube/Aluminum fin
- Cabinets are constructed with a minimum 16 ga. galvanized steel base and a combination of 16 and 20 ga. cabinet components
- ECM Ultra-high efficiency fan motor with overload protection
- High-efficiency rotary and scroll compressors
- Compressors mounted on rubber vibration isolators to minimize vibration transmission
- Condensate drain pan overflow switch
- Highly efficient heat exchanger optimizes efficiency
- TXV metering device.
- 1/2" (13) dual density fiberglass insulation.
- Stainless steel insulated condensate drain pan.
- Multiple return air configurations
- Flow control (1.0 to 20.0 GPM)
- Solid state control with thermostat
- 1" (25) throwaway filter
- Exceeds ASHRAE 90.1 efficiencies

OPTIONS:

- ❑ Other systems: Cooling Only
- ❑ 2" (51) Throwaway filter
- ❑ 1" (25) MERV 8 pleated filter
- ❑ 2" (51) MERV 8 pleated filter
- ❑ 1" (25) MERV 11 pleated filter
- ❑ 2" (51) MERV 11 pleated filter
- ❑ 1" (25) MERV 13 pleated filter
- ❑ 2" (51) MERV 13 pleated filter
- ❑ Toggle disconnect switch.
- ❑ Fused disconnect switch.
- ❑ Cupro-Nickel
- ❑ Standard geothermal
- ❑ Cupro-nickel geothermal
- ❑ Compressor sound blanket
- ❑ Vibration isolation pad
- ❑ Vibration pad & sound blanket
- ❑ External flow control
- ❑ Freeze protection
- ❑ Thermostat/Controls
- ❑ Valve package internal
- ❑ Valve package external (Ship loose)
- ❑ 2-Way valve
- ❑ 3-Way valve
- ❑ Flow control valve
- ❑ 1/2" (13) Foil face
- ❑ 1/2" (13) Closed cell foam
- ❑ Ball valve
- ❑ Memory stop
- ❑ Condensate pump
- ❑ Unit circuit breaker
- ❑ Special features: _____

Voltage:

Single phase, 60 Hz.

❑ 208V/230V ❑ 265V

Three phase, 60 Hz.

❑ 460V

General Information

Unit Size	TON	CFM	GPM	Cooling*			Heating**		Compressor	Shipping Weight (lbs)	Operating Weight (lbs)
				Total Capacity (btuh)	Sensible Capacity (btuh)	EER	Capacity (btuh)	COP			
6	1/2	200	1.7	6,000	4,350	15.0	7,500	5.0	Rotary	140	135
9	3/4	300	2.5	9,000	6,000	14.0	11,500	4.4	Rotary	143	138
12	1	400	3.3	12,500	9,250	13.0	15,000	4.4	Rotary	145	140
15	1 1/4	500	4.1	15,000	10,800	17.0	18,000	5.3	Rotary	187	185
18	1 1/2	600	5.0	18,000	12,820	16.0	22,500	5.0	Rotary	197	195
24	2	800	6.6	24,000	17,590	16.4	27,000	5.0	Scroll	234	235
30	2 1/2	1000	8.3	30,000	21,900	16.0	34,000	4.6	Scroll	259	255
36	3	1200	9.9	36,000	25,840	16.0	42,500	4.8	Scroll	291	280
42	3 1/2	1400	11.6	42,000	28,440	15.0	48,000	4.6	Scroll	311	290
48	4	1600	13.2	48,000	33,110	15.0	56,000	4.6	Scroll	338	320
60	5	2000	15.0	59,000	41,100	13.5	72,000	4.3	Scroll	358	340

* Based on 86ºF Entering Water Temp., 80ºF DB 67ºF WB Air Temperature. Performance based upon 208/60/1 voltage.
** Based on 68°F Entering Water Temp., 68°F DB 59°F WB Air Temperature.

Dimensions are in inches (mm).

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	4 - 17 - 26	44	3 - 31 - 26	44PVB-1

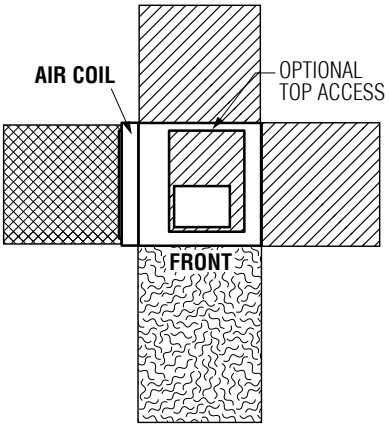
Engineered Comfort

SERENITY VERTICAL PACKAGED WATER SOURCE HEAT PUMP WITH ECM MOTOR LEFT AND RIGHT RETURN MODEL SERIES: 44PV-B • UNIT SIZES 6 – 60

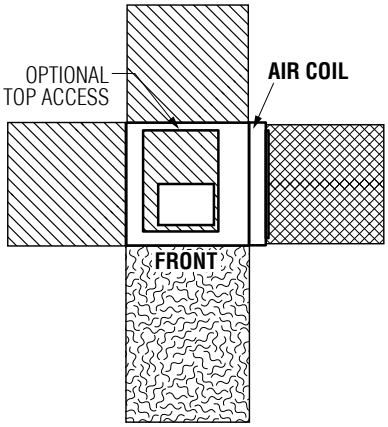
Electrical Data

Unit Size	Compressor				Supply Blower Motor		Single Point Power	
	Voltage-Hertz-Phase	RLA	LRA	QTY	FLA	HP	MCA	MOPD
6	208/230-60-1	2.4	17.7	1	1.8	1/4	4.8	15
	265-60-1	2.0	13.5	1	1.6	1/4	4.1	15
9	208/230-60-1	4.4	27.9	1	1.8	1/4	7.3	15
	265-60-1	3.5	22.2	1	1.6	1/4	6.0	15
12	208/230-60-1	5.2	29.0	1	1.8	1/4	8.3	15
	265-60-1	4.2	20.0	1	1.6	1/4	6.9	15
15	208/230-60-1	5.2	26.0	1	1.8	1/4	8.3	15
	265-60-1	4.7	21.0	1	1.6	1/4	7.5	15
18	208/230-60-1	6.6	36.0	1	1.8	1/4	10.1	15
	265-60-1	5.4	27.0	1	1.6	1/4	8.4	15
24	208/230-60-1	10.3	60.2	1	3.9	1/2	16.8	25
	265-60-1	10.3	60.5	1	3.6	1/2	16.5	25
	208/230-60-3	7.7	59.9	1	3.9	1/2	13.5	20
	460-60-3	3.8	32.4	1	1.2	1/2	6.0	15
30	208/230-60-1	12.7	75.6	1	3.9	1/2	19.8	30
	265-60-1	11.5	84.0	1	3.6	1/2	18.0	25
	208/230-60-3	9.6	67.7	1	3.9	1/2	15.9	25
	460-60-3	4.5	38.1	1	1.2	1/2	6.8	15
36	208/230-60-1	13.5	82.5	1	3.9	1/2	20.8	30
	265-60-1	12.2	83.0	1	3.6	1/2	18.9	30
	208/230-60-3	12.8	97.5	1	3.9	1/2	19.9	30
	460-60-3	5.1	44.3	1	1.2	1/2	7.6	15
42	208/230-60-1	17.3	123.0	1	6	3/4	27.6	40
	208/230-60-3	12.8	102.8	1	6	3/4	22.0	30
	460-60-3	5.8	50.0	1	1.7	3/4	9.0	15
48	208/230-60-1	22.4	126.0	1	6	3/4	34.0	50
	208/230-60-3	12.8	120.4	1	6	3/4	22.0	30
	460-60-3	6.0	49.4	1	1.7	3/4	9.2	15
60	208/230-60-1	25.6	155.0	1	7.4	1	39.4	60
	208/230-60-3	18.6	155.0	1	7.4	1	30.7	45
	460-60-3	8.3	58.1	1	2.3	1	12.7	20

Clearance Requirements



LEFT RETURN CLEARANCE



RIGHT RETURN CLEARANCE

= OPTIONAL 24" (610) UNIT ACCESS (ONE OF THREE REQUIRED)

= OPTIONAL 24" (610) UNIT ACCESS

= REQUIRED 36" (914) UNIT ACCESS

NOTES:

1. Front of unit is located by the unit control box. Thirty-six inches (36" [914]) clearance is required by the National Electric Code.
2. While clear access to all removable panels is not required, installer should take care to comply with all building codes and allow adequate clearance for future field service.
3. Front or side access is preferred for service access depending on unit options.

Dimensions are in inches (mm).

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	4 - 17 - 26	44	3 - 31 - 26	44PVB-1