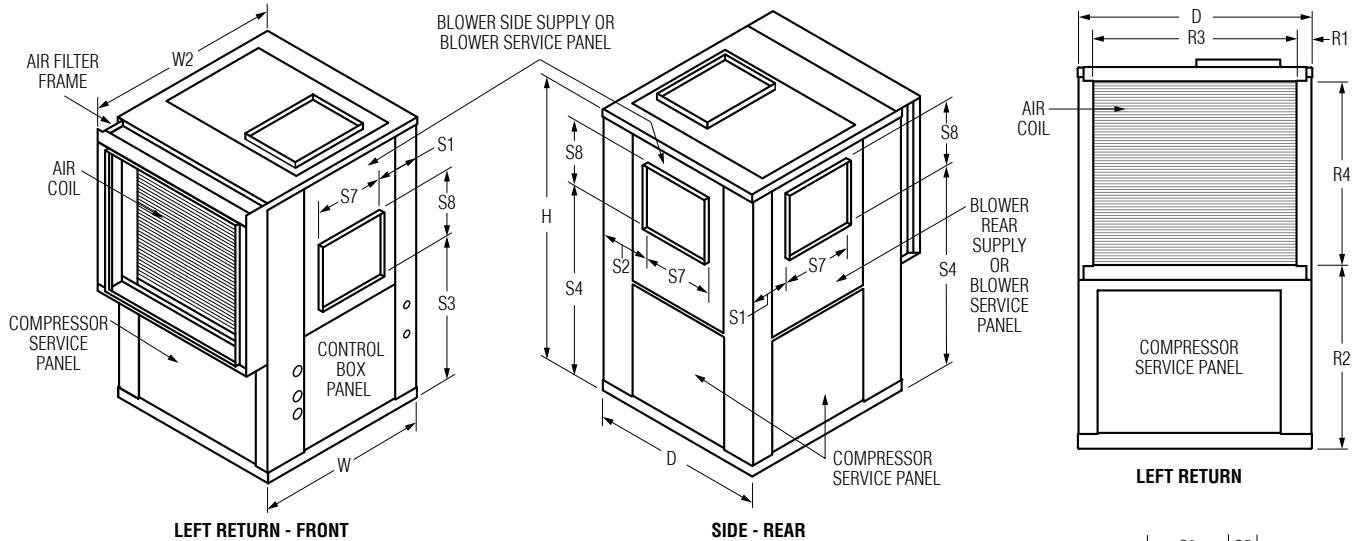




**SERENITY VERTICAL PACKAGED WATER SOURCE
HEAT PUMP WITH ECM MOTOR
LEFT RETURN
MODEL SERIES: 44PV • UNIT SIZES 6 – 72**

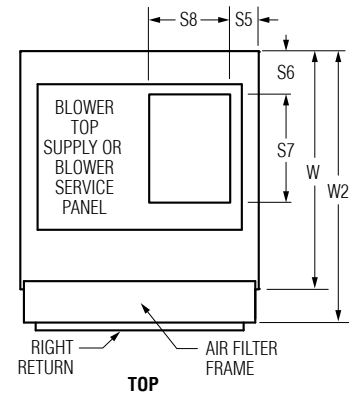


Dimensional Data with Optional Hydronic Heat and Waterside Economizer

Unit Size	W	W2	D	H
6, 9, 12	22 1/2 (572)	25 5/8 (651)	19 (483)	26 (660)
15, 18	25 1/2 (648)	28 5/8 (727)	22 (559)	38 (965)
24	25 1/2 (648)	28 5/8 (727)	22 (559)	42 (1067)
30	28 1/2 (724)	31 5/8 (803)	26 (660)	42 (1067)
36	28 1/2 (724)	31 5/8 (803)	26 (660)	47 (1194)
42	28 1/2 (724)	31 5/8 (803)	26 (660)	47 (1194)
48	29 1/2 (750)	32 3/8 (822)	32 (813)	48 (1219)
60	29 1/2 (750)	32 3/8 (822)	32 (813)	48 (1219)
72	30 1/2 (775)	33 3/8 (848)	32 (813)	64 (1626)



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)
72	26 (660)	29 1/8 (740)	32 (813)	61 (1549)	3 1/16 (78)	9 5/16 (237)	38 (965)	44 5/8 (1133)	5 3/4 (146)	3 1/16 (78)	15 1/16 (383)	13 13/16 (352)	1 3/8 (34)	25 5/16 (643)	29 5/16 (744)	34 3/8 (873)	30 x 36 (762 x 914)

SCHEDULE TYPE:

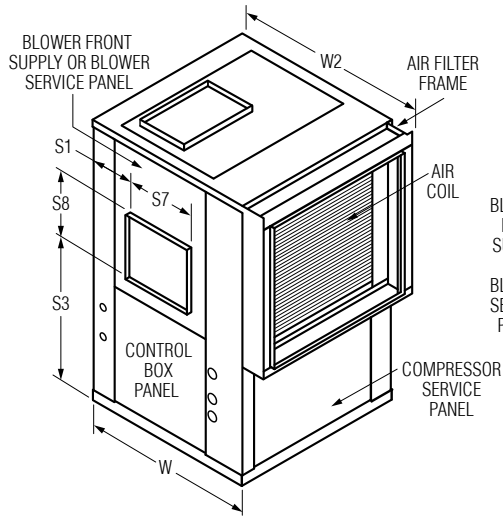
PROJECT:

ENGINEER:

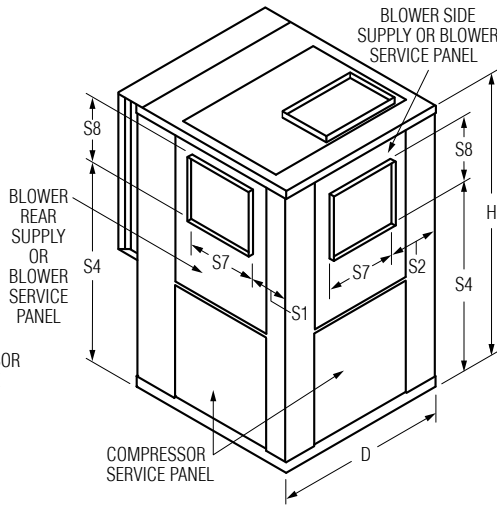
CONTRACTOR:

Page 1 of 4.
Dimensions are in inches (mm).

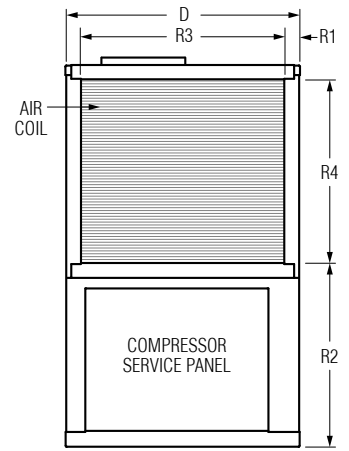
DATE	B SERIES	SUPERSEDES	DRAWING NO.
1 - 23 - 23	44	4 - 22 - 22	44PV-1



FRONT - RIGHT RETURN



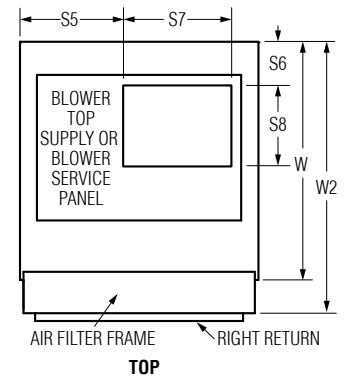
SIDE - REAR



RIGHT RETURN

Dimensional Data with Optional Hydronic Heat and Waterside Economizer

Unit Size	W	W2	D	H
6, 9, 12	22 1/2 (572)	25 5/8 (651)	19 (483)	26 (660)
15, 18	25 1/2 (648)	28 5/8 (727)	22 (559)	38 (965)
24	25 1/2 (648)	28 5/8 (727)	22 (559)	42 (1067)
30	28 1/2 (724)	31 5/8 (803)	26 (660)	42 (1067)
36	28 1/2 (724)	31 5/8 (803)	26 (660)	47 (1194)
42	28 1/2 (724)	31 5/8 (803)	26 (660)	47 (1194)
48	29 1/2 (750)	32 3/8 (822)	32 (813)	48 (1219)
60	29 1/2 (750)	32 3/8 (822)	32 (813)	48 (1219)
72	30 1/2 (775)	33 3/8 (848)	32 (813)	64 (1626)



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)
72	26 (660)	32 (813)	61 (1549)	29 1/8 (740)	3 1/16 (77)	9 5/16 (236)	38 (965)	44 11/16 (113)	12 3/8 (315)	3 1/16 (77)	13 7/8 (352)	15 1/16 (383)	1 3/8 (34)	22 5/16 (566)	29 5/16 (744)	34 3/8 (873)	30 x 36 (762 x 914)

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 4.
Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

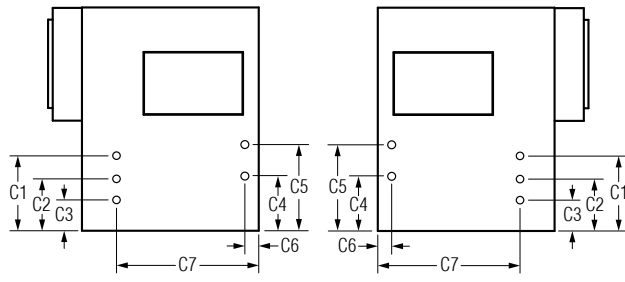
DRAWING NO.

1 - 23 - 23

44

4 - 22 - 22

44PV-1



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)
72	20 1/16 (510)	14 3/8 (365)	9 6/16 (237)	17 5/16 (440)	21 1/4 (540)	2 1/2 (64)	19 5/8 (498)

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	2.0	6,120	4,350	15.4	7,450	4.9	Rotary	140	125
9	3/4	300	2.5	9,130	6,000	14.0	11,180	4.4	Rotary	143	128
12	1	400	3.0	12,670	9,250	13.5	14,880	4.5	Rotary	145	130
15	1 1/4	500	3.8	15,220	10,800	17.0	18,020	5.6	Rotary	187	170
18	1 1/2	600	4.5	18,240	12,820	17.0	21,680	5.6	Rotary	197	180
24	2	800	6.0	24,320	17,590	16.4	28,170	5.2	Scroll	234	215
30	2 1/2	1000	7.5	30,370	21,900	16.0	24,240	5.0	Scroll	259	240
36	3	1200	9.0	36,470	25,840	17.0	43,260	5.0	Scroll	291	270
42	3 1/2	1400	10.5	42,580	28,440	15.0	49,270	4.6	Scroll	311	290
48	4	1600	12.0	48,820	33,110	15.0	53,360	4.6	Scroll	338	315
60	5	2000	15.0	58,720	41,100	15.0	72,390	4.6	Scroll	358	335
72	6	2200	18.0	71,000	53,700	15.0	78,000	4.2	Scroll	505	450

* Based on 86°F Entering Water Temp., 80°F DB 67°F 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.

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
- Highly efficient heat exchanger optimizes efficiency
- TXV metering device.
- 1/2" (13) dual density fiberglass insulation.
- Galvanized 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
 - Cooling with HW Heat
 - Heat Pump with Hot Gas Reheat
 - Heat Pump with Waterside Economizer
- 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
- Tin dipped hairpins
- Epoxy coating
- 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) Fiber-free liner
- Ball valve
- Memory stop
- Condensate pump
- Condensate drain pan overflow switch
- Unit circuit breaker
- Special features: _____

Voltage:

- Single phase, 60 Hz.
- 208V/230V 265V
- Three phase, 60 Hz.
- 460V 575V

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 4.
Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

DRAWING NO.

1 - 23 - 23

44

4 - 22 - 22

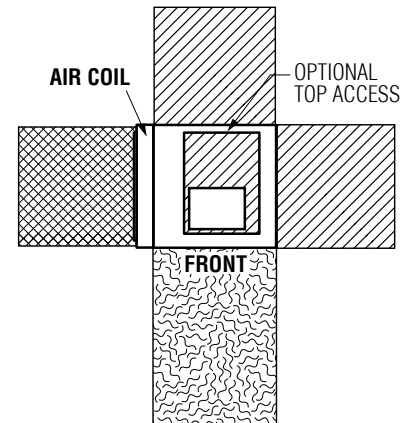
44PV-1

Electrical Data

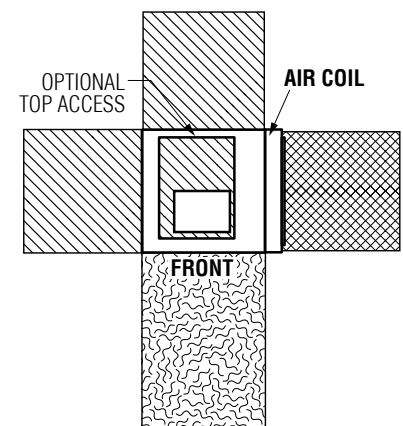
Unit Size	Compressor				Supply Blower Motor		Single Point Power	
	Voltage-Hertz-Phase	RLA	LRA	QTY	FLA	HP	MCA	MOPD
6	208/230-60-1	2.5	17.7	1	2.2	1/4	5.3	15
	265-60-1	2.1	13.5	1	2.2	1/4	4.8	15
9	208/230-60-1	4.0	22.2	1	2.2	1/4	7.2	15
	265-60-1	3.3	18.8	1	2.2	1/4	6.3	15
12	208/230-60-1	5.6	29.0	1	2.2	1/4	9.2	15
	265-60-1	4.6	20.0	1	2.2	1/4	8.0	15
15	208/230-60-1	4.8	26.0	1	2.2	1/4	8.2	15
	265-60-1	4.2	25.0	1	2.2	1/4	7.5	15
18	208/230-60-1	7.7	38.0	1	2.2	1/4	11.8	15
	265-60-1	7.1	30.0	1	2.2	1/4	11.1	15
24	208/230-60-1	13.5	58.3	1	4.6	1/2	21.5	30
	265-60-1	9.0	54.0	1	3.2	1/2	14.5	20
	208/230-60-3	7.1	55.4	1	4.6	1/2	13.5	20
	460-60-3	3.5	28.0	1	3.2	1/2	7.6	15
30	208/230-60-1	14.1	73.0	1	4.6	1/2	22.2	30
	265-60-1	11.2	60.0	1	3.2	1/2	17.2	20
	208/230-60-3	8.9	58.0	1	4.6	1/2	15.7	20
	460-60-3	4.2	28.0	1	3.2	1/2	8.5	15
36	208/230-60-1	14.1	77.0	1	4.6	1/2	22.2	30
	265-60-1	12.2	72.0	1	3.2	1/2	18.5	30
	208/230-60-3	9.0	71.0	1	4.6	1/2	15.9	20
	460-60-3	5.6	38.0	1	3.2	1/2	10.2	15
42	208/230-60-1	17.9	112.0	1	6.3	3/4	28.7	40
	265-60-1	16.0	87.0	1	3.9	3/4	23.9	30
	208/230-60-3	13.5	88.0	1	6.3	3/4	23.2	30
	460-60-3	6.0	44.0	1	3.9	3/4	11.4	15
48	208/230-60-1	21.8	117.0	1	6.3	3/4	33.6	50
	265-60-1	16.3	98.0	1	3.9	3/4	24.3	40
	208/230-60-3	13.7	83.1	1	6.3	3/4	23.4	30
	460-60-3	6.2	41.0	1	3.9	3/4	11.7	15
60	208/230-60-1	26.3	134.0	1	6.6	1	39.5	60
	265-60-1	19.9	128.0	1	6.0	1	30.9	50
	208/230-60-3	15.6	110.0	1	6.6	1	26.1	40
	460-60-3	7.8	52.0	1	6.0	1	15.8	20
72	208/230-60-1	30.8	178.0	1	6.6	1	45.1	50
	208/230-60-3	19.6	136.0	1	6.6	1	31.1	40
	460-60-3	8.2	66.1	1	6.0	1	16.3	20

NOTE: Four wire power supply with neutral connection required for all 460 volt units with ECM motor.

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.

Page 4 of 4.

Dimensions are in inches (mm).

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	1 - 23 - 23	44	4 - 22 - 22	44PV-1