ICE AIR® LLC
80 HARTFORD AVENUE, MOUNT VERNON, NY 10553
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VERTICAL STACK WATER SOURCE HEAT PUMP (VSHPW)

CERTIFIED DRAWING

DWG. NO.
SUBMITTAL TEMPLATE VSHPW
REV. -

PROJECT	PROJECT	DATE			BY		REVISIONS	
PURCHASER	PURCHASER	P.O. #		QTY	DATE		BY	DESCRIPTION
ARCHITECT	ARCHITECT	SHIPPING DATES						
ENGINEER	ENGINEER							
HVAC CONTR.	HVAC CONTRACTOR							
GEN. CONTR.	GEN CONTRACTOR							

DESIGNATION	MODEL NUMBER	QTY
TOTAL		

UNIT SPECIFICATIONS+

PERFORMACE DATA

TABLE 1

MODEL	8VSHPW09	8VSHPW12	8VSHPW15	8VSHPW18	8VSHPW24	8VSHPW30	8VSHPW36
COOLING CAPACITY*	9,100	12,500	13,900	18,100	25,400	31,200	36,500
COOLING EER	13.0	13.0	13.1	13.0	13.3	13.0	13.0
SENSIBLE CAPACITY	6552	9000	10008	13032	18288	22464	26280
HEATING CAPACITY**	12,500	15,100	18,100	24,300	31,300	35,400	40,700
HEATING COP	4.5	4.5	4.6	4.5	4.5	4.5	4.4
TYPICAL CFM	400	450	550	680	800	1050	1250

* BTUH @ 80.6°F DB, 66.2°F WB EAT; 86°F EWT @ 2 GPM
** BTUH @ 68°F DB, 59°F WB EAT; 68°F EWT

PHYSICAL DATA

TABLE 2

MODEL	8VSHPW09	8VSHPW12	8VSHPW15	8VSHPW18	8VSHPW24	8VSHPW30	8VSHPW36
COMPRESSOR TYPE (1 EA)	ROTARY				SCROLL		
REFRIGERANT	R410A						
REFRIGERANT FACTORY CHARGE (oz)	28.1	30.2	32.1	38.2	41.3	70.1	73.1
FAN MOTOR (W)	35	35	35	150	150	200	200
BLOWER WHEEL SIZE (DIAMETERXWIDTH) (IN)	7X7	7X7	7X7	7X7	7X7	8X8	8X8
HOSES (IN)	1/2	1/2	1/2	3/4	3/4	3/4	3/4
AIR COIL DIMENSION (IN)	18X12	22.5X12	28X12	23X14	26X18	26X18	30X18
STANDARD FILTER-1/2"	28X12	28X12	28X12	30X14	30X18	30X18	30X18
AC CHASSIS WEIGHT (LB)	117	122	126	135	138	160	165
CABINET WEIGHT (LB)	154	156	158	154	167	260	264

FOR OVERALL UNIT DIMENSIONS PLEASE REFER TO DRAWING APA-9088

TYPICAL WATER SIDE DATA

TABLE 3

MODEL	8VSHPW09	8VSHPW12	8VSHPW15	8VSHPW18	8VSHPW24	8VSHPW30	8VSHPW36
FLOW RATE (GPM)	1.5	2.0	2.3	3.0	4.0	5.0	6.0
WATER CONNECTION SIZE (IN)	1/2	1/2	1/2	3/4	3/4	3/4	3/4
CONDENSATE CONNECTION SIZE (IN)	1/2						

GENERAL NOTES

1: PROVIDE UNITS WITH R410A GREEN REFRIGERANT
2: PROVIDE 1/2" WASHABLE FILTERS
3: PROVIDE OVERFLOW CONDENSATE SWITCH
4: PROVIDE STANDARD UNIT-MOUNTED DIGITAL CONTROL BOARD
5: PROVIDE PAINTED ACOUSTICAL ACCESS DOOR FRONT PANEL
6: PROVIDE INTEGRAL TRAPPED CONDENSATE LINE RUN OUT

OPTIONAL

1: STAINLESS STEEL HOSE KITS
2: MOTORIZED TWO-WAY CONTROL VALVE
3: BALL VALVES
4: DOUBLE DEFLECTION SUPPLY GRILLES
5: UNIT-MOUNTED FLOW CONTROL VALVE

CUSTOM NOTES

1:

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VERTICAL STACKWATER SOURCE HEAT PUMP (VHPW)
CERTIFIED DRAWING

DWG. NO.
SUBMITTAL TEMPLATE VSHPW
REV. -

PROJECT	PROJECT	DATE			BY	REVISIONS	
PURCHASER	PURCHASER	P.O. #		QTY	DATE	BY	DESCRIPTION
ARCHITECT	ARQUITECT	SHIPPING DATES					
ENGINEER	ENGINEER						
HVAC CONTR.	HVAC CONTRACTOR						
GEN. CONTR.	GEN CONTRACTOR						

UNIT SPECIFICATIONS+

ELECTRICAL DATA

TABLE 4

MODEL	VOLTAGE/HZ-PHASE	COMPRESSOR RLA	COMPRESSOR LRA	FAN MOTOR FLA	TOTAL UNIT FLA	MINIMUM CIRCUIT AMPS	MAX FUSE /HACR
8VSHPW09	208-230/60-1	3.9	18	0.5	4.4	5.4	15
8VSHPW12	208-230/60-1	5.2	25	0.7	5.9	7.2	15
8VSHPW15	208/230/60-2	5.8	30	1.0	6.8	8.3	15
8VSHPW18	208/230/60-1	7.7	32	1.2	8.9	10.8	20
8VSHPW24	208-230/60-1	13.5	58	1.8	15.3	18.7	30
8VSHPW30	208/230/60-1	14.3	64	2.2	16.5	20.1	30
8VSHPW36	208-230/60-1	15.7	77	2.5	18.2	22.1	35

AIR FLOW CORRECTION TABLE

TABLE 5

	% OF RATED AIR FLOW	70%	75%	80%	85%	90%	95%	100%	105%
COOLING FACTORS	TOTAL CAPACITY	0.92	0.93	0.95	0.96	0.97	0.99	1.00	1.02
	SENSIBLE CAPACITY	0.80	0.83	0.87	0.90	0.93	0.97	1.00	1.04
	POWER	0.97	0.97	0.98	0.99	0.99	1.00	1.00	1.01
	HEAT REJECTION	0.94	0.95	0.96	0.97	0.98	0.99	1.00	1.01
HEATING FACTORS	HEATING CAPACITY	0.94	0.95	0.96	0.97	0.98	0.99	1.00	1.01
	POWER	1.08	1.06	1.05	1.04	1.02	1.01	1.00	0.99
	HEAT EXTRACTION	0.93	0.95	0.96	0.97	0.98	0.99	1.00	1.01

AIR TEMPERATURE CORRECTION TABLE

TABLE 6

HEATING								
EAT DB (°F)	45	50	55	60	65	70	75	80
HEATING CAPACITY FACTOR	1.11	1.09	1.06	1.04	1.02	1.00	0.98	0.95
POWER FACTOR	0.77	0.81	0.86	0.91	0.95	1.00	1.05	1.10
HEAT EXTRACTION FACTOR	1.18	1.14	1.11	1.07	1.04	1.00	0.96	0.92

TABLE 7

COOLING						
EAT WB (°F)		60	65	67	70	75
TOTAL CAPACITY FACTOR		0.85	0.96	1.00	1.06	1.17
SENSIBLE CAPACITY FACTOR EAT DB	70	0.85	0.62	0.52	-	-
	75	1.09	0.86	0.76	0.62	-
	80	1.33	1.09	1.00	0.86	0.63
	85	*	1.33	1.23	1.09	0.85
	90	*	*	1.48	1.34	1.10
	95	*	*	*	1.56	1.32
POWER FACTOR		1.00	1.00	1.00	1.00	1.01
HEAT REJECTION FACTOR		0.90	0.97	1.00	1.05	1.12

DB - DRY BULB AIR TEMPERATURE
WB - WET BULB AIR TEMPERATURE
EAT - ENTERING AIR TEMPERATURE
ALL TEMPERATURES ARE IN °F
* = SENSIBLE CAPACITY EQUALS TOTAL CAPACITY

Ice-Air LLC
Correction Chart

Performance Table

8VSHPW09

EWT		60			70			80			85			90			100			110		
GPM		1.1	1.7	2.3	1.1	1.7	2.3	1.1	1.7	2.3	1.1	1.7	2.3	1.1	1.7	2.3	1.1	1.7	2.3	1.1	1.7	2.3
Water dP (Ft)		1.1	3.4	6.6	1.1	3.3	6.3	1.0	3.2	6.1	1.0	3.2	6.1	1.0	3.1	6.0	1.0	3.0	5.9	0.9	3.0	5.8
	Total	10.4	10.9	11.0	9.9	10.3	10.5	9.3	9.7	9.9	8.9	9.4	9.6	8.5	9.0	9.3	7.5	8.2	8.5	6.5	7.1	7.4
	Sensible	7.2	7.3	7.3	7.1	7.2	7.2	6.8	7.0	7.1	6.7	6.9	7.0	6.5	6.7	6.8	6.0	6.3	6.5	5.4	5.8	6.0
	Power (KW)	0.6	0.6	0.5	0.7	0.6	0.6	0.7	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.7	0.9	0.9	0.8	1.0	0.9	0.9
	Heat Rejection	12.5	12.7	12.7	12.2	12.4	12.5	11.8	12.1	12.2	11.6	11.9	12.0	11.3	11.7	11.8	10.7	11.1	11.3	9.9	10.3	10.7
Cooling	EER	17.4	19.4	20.4	14.8	16.6	17.6	12.4	14.0	14.9	11.4	12.9	13.7	10.3	11.7	12.4	8.3	9.5	10.2	6.6	7.6	8.2
	Total	10.4	11.1	11.5	11.7	12.5	12.9	13.0	13.8	14.2	13.6	14.4	14.8	14.1	14.9	15.4						
	Power (KW)	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8						
	Heat Extraction	8.0	8.6	8.9	9.2	9.9	10.3	10.4	11.1	11.5	11.0	11.7	12.1	11.5	12.2	12.6						
Heating	COP	4.1	4.4	4.5	4.6	4.8	4.9	4.9	5.2	5.3	5.1	5.4	5.5	5.3	5.5	5.6	Operation Not Recommended					

8VSHPW12

EWT		60			70			80			85			90			100			110		
GPM		1.5	2.3	3.0	1.5	2.3	3.0	1.5	2.3	3.0	1.5	2.3	3.0	1.5	2.3	3.0	1.5	2.3	3.0	1.5	2.3	3.0
Water dP (Ft)		2.8	6.6	12.1	2.6	6.1	11.5	2.5	5.8	10.9	2.4	5.7	10.7	2.3	5.6	10.5	2.3	5.5	10.3	2.2	5.3	10.0
	Total	14.4	15.0	15.3	13.6	14.2	14.4	12.5	13.3	13.6	12.0	12.7	13.0	11.4	12.2	12.5	10.3	11.0	11.3	9.2	9.8	10.1
	Sensible	9.4	9.6	9.7	8.9	9.3	9.4	8.5	8.8	8.9	8.3	8.6	8.7	8.1	8.4	8.5	7.7	7.9	8.1	7.1	7.4	7.5
	Power (KW)	0.8	0.7	0.7	0.9	0.8	0.8	1.0	0.9	0.9	1.0	1.0	0.9	1.1	1.0	1.0	1.2	1.1	1.1	1.3	1.2	1.2
	Heat Rejection	17.1	17.5	17.7	16.6	17.0	17.1	15.8	16.4	16.6	15.5	16.0	16.2	15.1	15.6	15.8	14.3	14.9	15.1	13.6	14.0	14.2
Cooling	EER	18.1	20.3	21.6	15.2	17.1	18.2	12.7	14.3	15.2	11.6	13.1	13.9	10.6	11.9	12.6	8.7	9.8	10.4	7.1	8.0	8.5
	Total	12.8	13.6	14.0	14.3	15.1	15.6	15.8	16.6	17.1	16.4	17.3	17.8	17.1	18.0	18.4						
	Power (KW)	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0						
	Heat Extraction	9.7	10.4	10.8	11.1	11.9	12.3	12.5	13.3	13.7	13.1	14.0	14.3	13.8	14.5	14.9						
Heating	COP	4.1	4.3	4.4	4.5	4.6	4.7	4.8	5.0	5.1	4.9	5.1	5.2	5.1	5.2	5.3	Operation Not Recommended					

8VSHPW15

EWT		60			70			80			85			90			100			110		
GPM		1.9	2.8	3.8	1.9	2.8	0.8	1.9	2.8	3.8	1.9	2.8	3.8	1.9	2.8	3.8	1.9	2.8	3.8	1.9	2.8	3.8
Water dP (Ft)		0.6	1.1	3.3	0.5	1.0	3.0	0.5	1.0	2.9	0.5	1.0	2.8	0.5	0.9	2.8	0.5	0.9	2.7	0.5	0.8	2.5
	Total	16.3	17.1	17.5	15.2	16.0	16.3	13.9	14.7	15.1	13.3	14.1	14.5	12.7	13.4	13.8	11.4	12.1	12.5	10.1	10.8	11.1
	Sensible	11.2	11.5	11.7	10.6	11.0	11.2	10.1	10.4	10.6	9.8	10.1	10.3	9.5	9.8	10.0	9.0	9.3	9.4	8.5	8.7	8.9
	Power (KW)	0.9	0.8	0.8	1.0	0.9	0.9	1.1	1.0	1.0	1.2	1.1	1.1	1.2	1.2	1.1	1.3	1.3	1.2	1.5	1.4	1.4
	Heat Rejection	19.3	19.9	20.1	18.5	19.1	19.3	17.7	18.2	18.5	17.2	17.8	18.1	16.8	17.3	17.6	15.9	16.4	16.7	15.1	15.5	15.8
Cooling	EER	18.2	20.5	21.8	15.2	17.1	18.2	12.6	14.2	15.1	11.5	12.9	13.7	10.3	11.6	12.4	8.5	9.5	10.1	6.9	7.7	8.2
	Total	14.9	15.8	16.3	16.7	17.7	18.3	18.5	19.6	20.2	19.4	20.6	21.2	20.3	21.5	22.2						
	Power (KW)	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1						
	Heat Extraction	11.5	12.2	12.7	13.1	14.0	14.6	14.9	15.9	16.4	15.7	16.7	17.4	16.5	17.6	18.2						
Heating	COP	4.3	4.4	4.6	4.7	4.9	5.0	5.0	5.2	5.3	5.2	5.4	5.5	5.4	5.6	5.7	Operation Not Recommended					

8VSHPW18

EWT		60			70			80			85			90			100			110		
GPM		2.3	3.4	4.5	2.3	3.4	4.5	2.3	3.4	4.5	2.3	3.4	4.5	2.3	3.4	4.5	2.3	3.4	4.5	2.3	3.4	4.5
Water dP (Ft)		1.2	3.6	6.8	1.2	3.2	6.3	1.2	3.2	6.0	1.1	2.9	5.7	1.0	2.9	5.6	1.0	2.9	5.4	1.0	2.8	5.3
	Total	20.9	21.8	22.1	19.7	20.6	21.0	18.3	19.2	19.6	17.5	18.4	18.8	16.8	17.7	18.2	15.3	16.1	16.7	13.8	14.6	15.1
	Sensible	14.8	15.2	15.4	14.2	14.6	14.8	13.5	14.0	14.2	13.2	13.6	13.9	12.9	13.3	13.5	12.1	12.6	12.8	11.5	11.9	12.1
	Power (KW)	1.2	1.1	1.0	1.3	1.2	1.2	1.5	1.4	1.3	1.5	1.4	1.4	1.6	1.5	1.5	1.8	1.7	1.6	1.9	1.8	1.8
	Heat Rejection	24.8	25.3	25.6	24.0	24.6	24.8	23.2	23.7	24.0	22.7	23.3	23.5	22.2	22.9	23.1	21.3	21.9	22.1	20.4	20.9	21.2
Cooling	EER	18.1	20.3	21.5	15.2	17.0	18.1	12.6	14.2	15.1	11.5	13.0	13.8	10.5	11.8	12.5	8.6	9.7	10.3	7.1	8.0	8.4
	Total	20.4	21.5	22.1	22.8	24.1	24.7	25.2	26.4	27.2	26.2	27.5	28.3	27.3	28.7	29.3						
	Power (KW)	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5						
	Heat Extraction	15.7	16.8	17.3	18.0	19.1	19.8	20.2	21.5	22.1	21.3	22.6	23.2	22.4	23.5	24.2						
Heating	COP	4.3	4.5	4.6	4.7	4.9	5.0	5.1	5.3	5.4	5.2	5.4	5.6	5.4	5.6	5.7	Operation Not Recommended					

8VSHPW24

EWT		60			70			80			85			90			100			110		
GPM		3.0	4.5	6.0	3.0	4.5	6.0	3.0	4.5	6.0	3.0	4.5	6.0	3.0	4.5	6.0	3.0	4.5	6.0	3.0	4.5	6.0
Water dP (Ft)		2.9	4.9	9.8	2.8	4.8	9.5	2.6	4.5	8.8	2.5	4.4	8.7	2.5	4.3	8.6	2.4	4.1	7.9	2.3	4.0	7.9
	Total	30.2	31.3	31.7	28.4	29.6	30.3	26.2	27.7	28.4	25.0	26.5	27.2	23.9	25.4	26.1	21.6	23.0	23.7	19.4	20.7	21.4
	Sensible	22.1	22.6	22.8	21.1	21.8	22.1	20.1	20.8	21.1	19.5	20.2	20.6	19.0	19.6	20.0	17.9	18.6	18.8	17.1	17.6	17.8
	Power (KW)	1.6	1.5	1.5	1.8	1.7	1.6	2.0	1.9	1.8	2.2	2.0	1.9	2.3	2.1	2.0	2.6	2.4	2.3	2.9	2.7	2.6
	Heat Rejection	35.7	36.4	36.7	34.5	35.4	35.7	33.1	34.0	34.5	32.4	33.3	33.8	31.7	32.5	33.0	30.3	31.1	31.6	29.4	29.9	30.2
Cooling	EER	18.5	20.5	21.6	15.6	17.5	18.5	12.9	14.6	15.5	11.7	13.3	14.2	10.5	12.0	12.8	8.4	9.6	10.3	6.7	7.6	8.2
	Total	26.4	28.0	28.8	29.8	31.6	32.6	33.2	35.2	36.3	34.9	36.9	38.1	36.5	38.7	39.9						
	Power (KW)	1.8	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2						
	Heat Extraction	20.2	21.6	22.3	23.3	24.9	25.9	26.4	28.2	29.3	27.9	29.8	30.9	29.5	31.4	32.5						
Heating	COP	4.2	4.4	4.5	4.5	4.7	4.8	4.9	5.0	5.1	5.0	5.1	5.2	5.1	5.3	5.4	Operation Not Recommended					

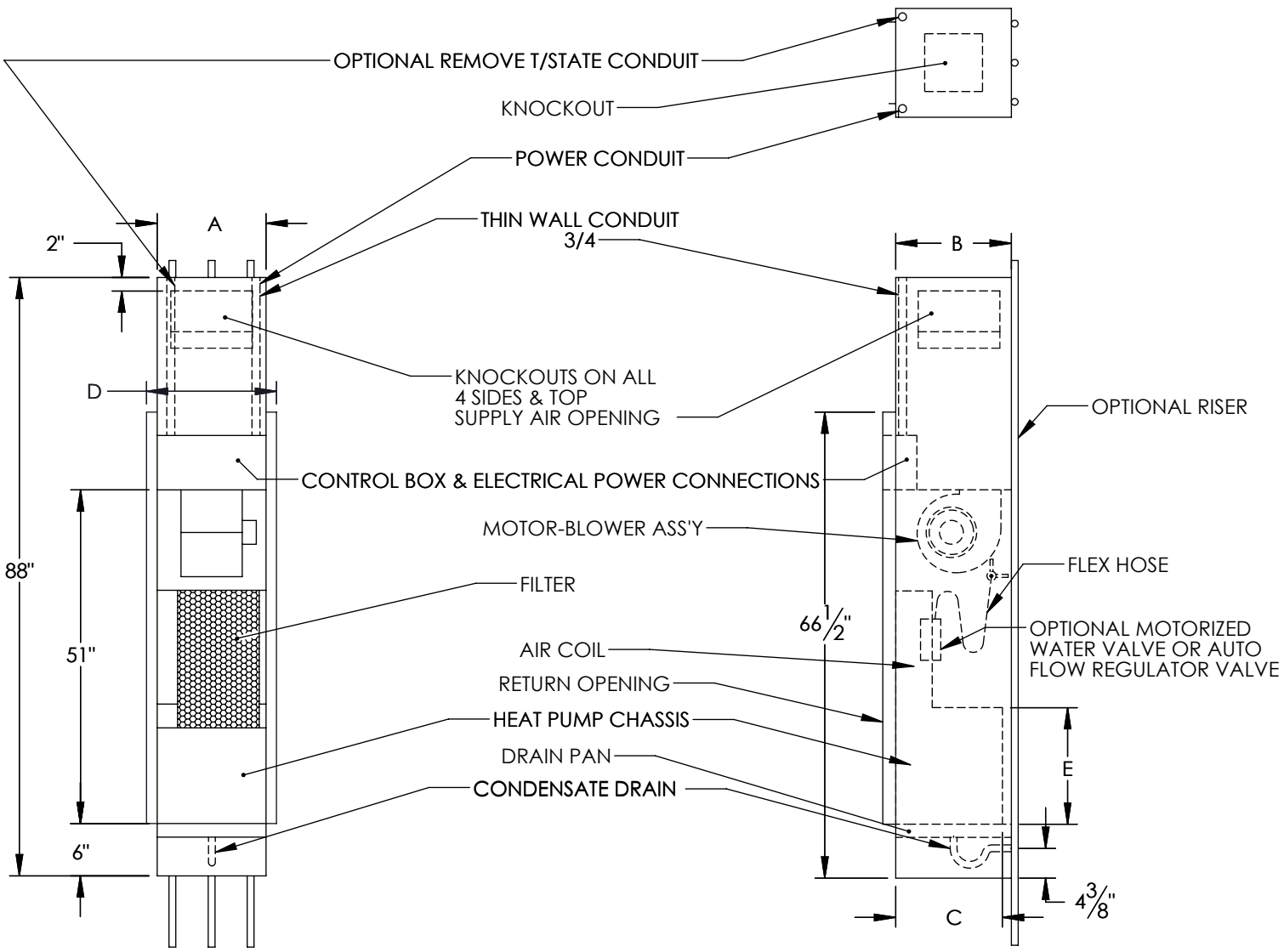
8VSHPW30

EWT		60			70			80			85			90			100			110		
GPM		3.8	5.6	7.5	3.8	5.6	7.5	3.8	5.6	7.5	3.8	5.6	7.5	3.8	5.6	7.5	3.8	5.6	7.5	3.8	5.6	7.5
Water dP (Ft)		2.1	6.4	12.1	2.1	6.2	11.7	1.7	5.4	10.2	1.6	5.3	9.9	1.6	5.2	9.7	1.6	4.9	9.3	1.6	4.7	9.3
	Total	37.3	37.9	38.1	36.0	36.9	37.3	34.1	35.3	35.9	32.9	34.3	34.9	31.8	33.3	34.0	28.9	30.6	31.4	25.7	27.5	28.4
	Sensible	24.2	24.3	24.3	23.9	24.2	24.2	23.4	23.8	23.9	22.9	23.4	23.6	22.3	23.0	23.3	20.9	21.9	22.2	19.0	20.1	20.7
	Power (KW)	2.0	1.9	1.8	2.2	2.0	2.0	2.4	2.3	2.2	2.5	2.4	2.3	2.7	2.5	2.4	3.0	2.8	2.7	3.3	3.1	3.0
	Heat Rejection	42.0	42.1	42.1	41.3	41.8	42.0	40.4	41.1	41.3	39.7	40.5	40.7	39.0	39.9	40.3	37.4	38.4	38.9	35.7	36.7	37.2
Cooling	EER	17.8	19.1	19.8	15.7	17.0	17.7	13.4	14.8	15.5	12.4	13.7	14.4	11.3	12.6	13.3	9.2	10.4	11.0	7.3	8.3	8.9
	Total	31.0	32.3	33.0	34.0	35.3	35.9	36.6	37.5	37.8	37.3	38.1	38.3	38.2	38.6	38.6						
	Power (KW)	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2						
	Heat Extraction	23.8	25.1	25.9	26.7	28.0	28.5	29.2	30.0	30.5	29.9	30.6	30.8	30.7	31.0	31.1						
Heating	COP	4.3	4.5	4.5	4.7	4.8	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.1	Operation Not Recommended					

8VSHPW36

EWT		60			70			80			85			90			100			110		
GPM		4.5	6.8	9.0	4.5	6.8	9.0	4.5	6.8	9.0	4.5	6.8	9.0	4.5	6.8	9.0	4.5	6.8	9.0	4.5	6.8	9.0
Water dP (Ft)		5.2	10.7	17.9	5.1	10.5	17.5	4.7	9.7	16.2	4.6	10.0	15.9	4.6	10.4	15.5	4.3	9.0	15.1	4.3	8.8	14.8
	Total	42.1	43.4	43.9	39.8	41.3	42.0	37.3	38.9	39.7	36.1	37.7	38.3	34.7	36.3	37.1	31.9	33.5	34.3	29.4	30.8	31.6
	Sensible	28.3	28.8	29.0	27.2	27.8	28.2	26.0	26.7	27.0	25.3	26.1	26.5	24.8	25.4	25.8	23.7	24.3	24.6	23.0	23.4	23.6
	Power (KW)	2.3	2.2	2.1	2.6	2.4	2.3	2.9	2.7	2.6	3.0	2.8	2.7	3.2	3.0	2.9	3.6	3.3	3.2	4.0	3.8	3.6
	Heat Rejection	50.0	50.7	51.0	48.5	49.4	49.9	47.0	47.9	48.4	46.2	47.1	47.7	45.5	46.3	46.9	44.2	44.8	45.3	43.1	43.7	43.9
Cooling	EER	18.0	19.7	20.6	15.5	17.1	17.9	13.1	14.5	15.3	12.0	13.3	14.1	10.9	12.1	12.8	8.9	10.0	10.6	7.3	8.2	8.7
	Total	35.5	37.2	38.1	39.4	41.3	42.3	43.3	45.2	46.2	45.1	47.0	47.9	46.9	48.7	49.6						
	Power (KW)	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.7	2.7						
	Heat Extraction	27.3	28.8	29.8	31.0	32.8	33.7	34.6	36.4	37.3	36.3	38.0	38.9	37.9	39.7	40.5						
Heating	COP	4.3	4.4	4.5	4.6	4.8	4.9	4.9	5.1	5.2	5.1	5.2	5.3	5.2	5.3	5.4	Operation Not Recommended					

COP — Coefficient of Performance
EER — Energy Efficiency Ratio
EWT — Entering Water Temperature
GPM — Gallons Per Minute
dP— Pressure Drop
All entering air conditions are 80°F DB and 67°F WB in cooling, and 70°F DB in heating.
All capacities are in 1000 BTUh
All temperatures are in F



UNIT SIZE	A	B	C	D	E
VSHPW-09	16	17	15	18 7/8	18
VSHPW-12	16	17	15	18 7/8	18
VSHPW-15	16	17	15	18 7/8	18
VSHPW-18	18	20	18	20 7/8	19
VSHPW-24	18	20	18	20 7/8	19
VSHPW-30	22	24	22	24 7/8	20
VSHPW-36	22	24	22	24 7/8	20

PER ICE-AIR'S ONGOING DEVELOPMENT PROGRAM, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

MATERIAL:

WEIGHT (LBS):

FINISH:

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 1/32
ANGULAR: MACH ± ° BEND ± 1°
TWO PLACE DECIMAL ± .03
THREE PLACE DECIMAL ± .015

ICE-AIR LLC.
80 HARTFORD AVENUE
MOUNT VERNON, NY 10553

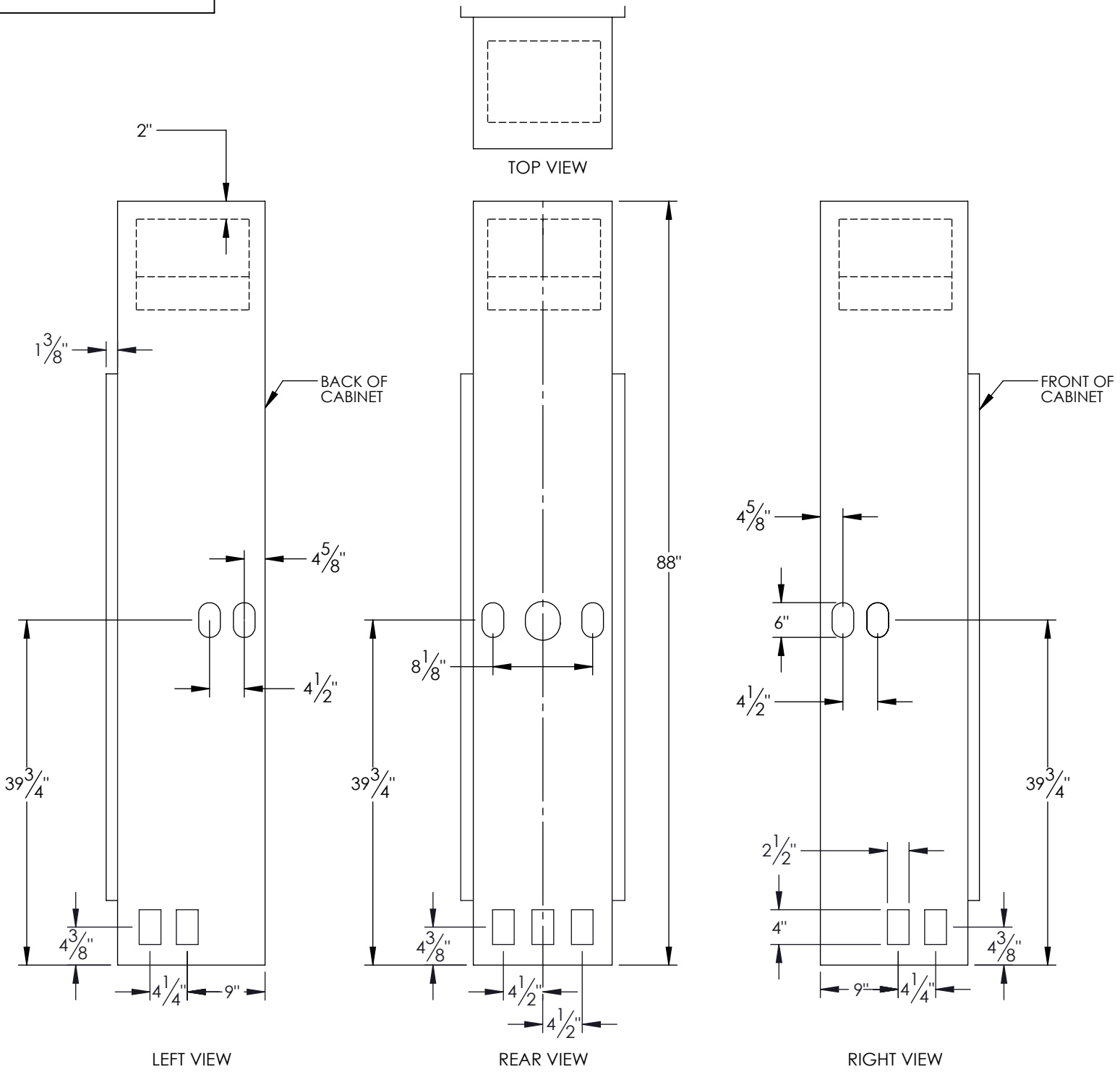
TITLE: VERTICAL STACK WATER SOURCE HEAT PUMP (VSHPW)

MODEL BY: | DATE: | DWG. NO.

DRAWING BY: | DATE:

Third Angle Projection

SIZE **A** | SCALE: NONE DO NOT SCALE DRAWING | SHEET 4 OF 7 | REV

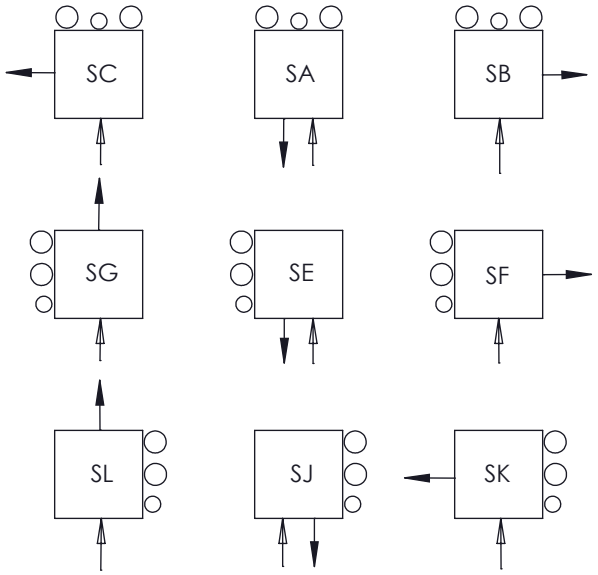


PER ICE-AIR'S ONGOING DEVELOPMENT PROGRAM, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

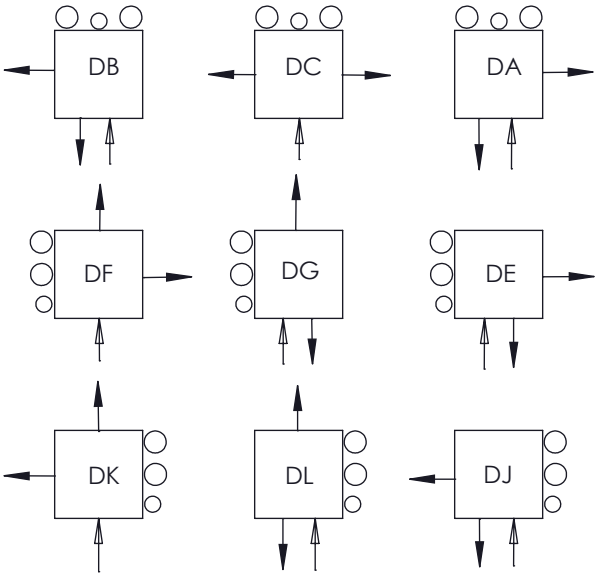
MATERIAL:	**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553
WEIGHT (LBS):	
FINISH:	TITLE: DIMENSIONAL DRAWING
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: DATE: DWG. NO. DRAWING BY: DATE: SIZE A — SCALE: NONE DO NOT SCALE DRAWING — SHEET 5 OF 7 — REV

Third Angle Projection

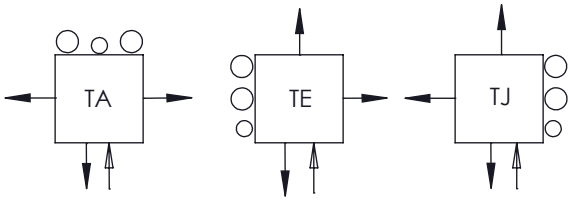
SINGLE SUPPLY

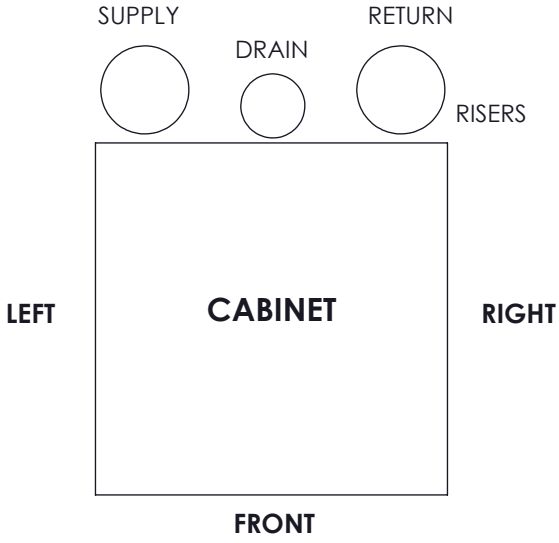


DOUBLE SUPPLY



TRIPLE SUPPLY





RETURN AIR FROM ROOM
SUPPLY AIR TO ROOM

Notes:
1. The Riser Compartment is defined as being the rear of each unit
   Supply air grilles and return/access panel can be any side except rear
2. Return air location also denotes the control location and service access.
3. Single discharge openings are not recomended for sizes 30-36.
   Triple discharge openings are not recomended for sizes 09, 12

NOTES:
1) DIMENSIONS ARE IN INCHES
2) ALL DIMENSIONS ARE +/- 1/4"
3) DISCHARGE GRILLES ARE SHIPPED LOOSE FOR FIELD INSTALLATION
4) CONSTRUCTION IS ROLL FORMED ALUMINUM FRAME BLADES
5) STANDARD FINISH IS "POWDER COATED" AND WILL BE THE SAME COLOR AS THE RETURN GRILLE
6) MOUNTING HARDWARE INCLUDED

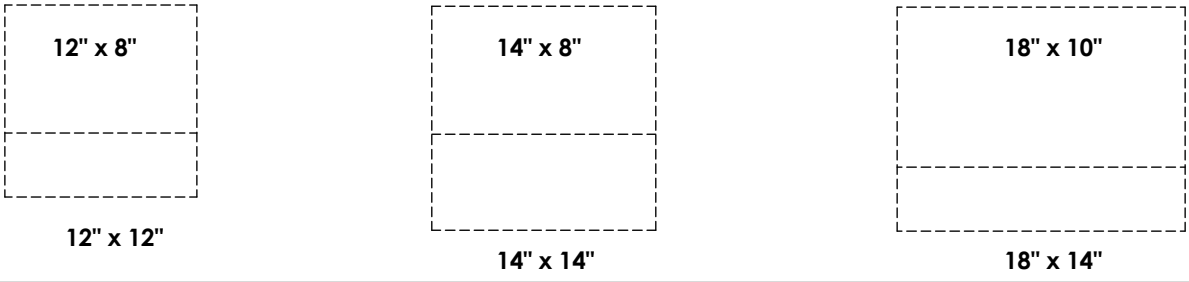
PER ICE-AIR'S ONGOING DEVELOPMENT PROGRAM, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

MATERIAL:	**ICE-AIR LLC.** 80 HARTFORD AVENUE MOUNT VERNON, NY 10553
WEIGHT (LBS):	
FINISH:	TITLE: DIMENSIONAL DRAWING
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MACH ± ° BEND ± 1° TWO PLACE DECIMAL ± .03 THREE PLACE DECIMAL ± .015	MODEL BY: DATE: DWG. NO. DRAWING BY: DATE: SIZE A — SCALE: NONE DO NOT SCALE DRAWING — SHEET 6 OF 7 — REV

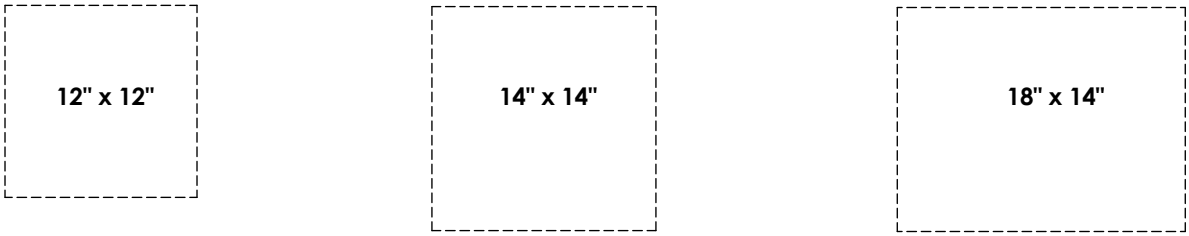
Third Angle Projection

UNIT	SPEED	SINGLE DISCHARGE	DOUBLE DISCHARGE	TRIPLE DISCHARGE	TOP DISCHARGE
		12" x 12"	12" x 8"	12" x 8"	12" x 12"
8VSHPW09	HIGH	X	X	NR	X
	LOW				
8VSHPW12	HIGH	X	X	NR	X
	LOW				
8VSHPW15	HIGH	X	X	X	X
	LOW				
		SINGLE DISCHARGE	**DOUBLE DISCHARGE**	**TRIPLE DISCHARGE**	**TOP DISCHARGE**
UNIT	SPEED	14" x 14"	14" x 8"	14" x 8"	14" x 14"
8VSHPW18	HIGH	X	X	X	X
	LOW				
8VSHPW24	HIGH	X	X	X	X
	LOW				
		SINGLE DISCHARGE	**DOUBLE DISCHARGE**	**TRIPLE DISCHARGE**	**TOP DISCHARGE**
UNIT	SPEED	18" x 14"	18" x 10"	18" x 10"	18" x 14"
8VSHPW30	HIGH	NR	X	X	X
	LOW				
8VSHPW36	HIGH	NR	X	X	X
	LOW				

SIDE KNOCKOUTS



TOP KNOCKOUTS



GRILLE SIZES
12" x 8"
12" x 12"
14" x 8"
14" x 14"
18" x 10"
18" x 14"

MATERIAL:

WEIGHT (LBS):

FINISH:

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ± 1/32
ANGULAR: MACH ± ° BEND ± 1°
TWO PLACE DECIMAL ± .03
THREE PLACE DECIMAL ± .015

ICE-AIR LLC.
80 HARTFORD AVENUE
MOUNT VERNON, NY 10553

TITLE: GRILLE CHART

MODEL BY: | DATE: | DWG. NO.

DRAWING BY: | DATE:

SIZE **A** | SCALE: NONE DO NOT SCALE DRAWING | SHEET 7 OF 7 | REV

Third Angle Projection