

ENGINEERING GUIDE

SKYPAK Self-Contained Heating/Cooling Units



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INTRODUCTION

High performance designs accommodate the increased installation requirements of today's market.

SKYPAK gives you a complete air-conditioning and heating system as an all-in-one package unit. Designed for conventional through-the-wall installation in residential low and high rise, industrial and commercial applications. The all-indoor design eliminates the need for any unsightly exterior equipment, and refrigerant line connections, while maintaining architectural aesthetics, protecting the SKYPAK from weathering and vandalism.

PRODUCT OVERVIEW

Refrigerant

R-410A

Sizes

1 – 2½ Tons (17.8 – 87.9 kW)

Models

SGAD	(Gas Heat)	1-2½ Tons
SEAD	(Electric Heat)	1-2½ Tons
SWAD	(Hot Water)	1-2½ Tons

Features

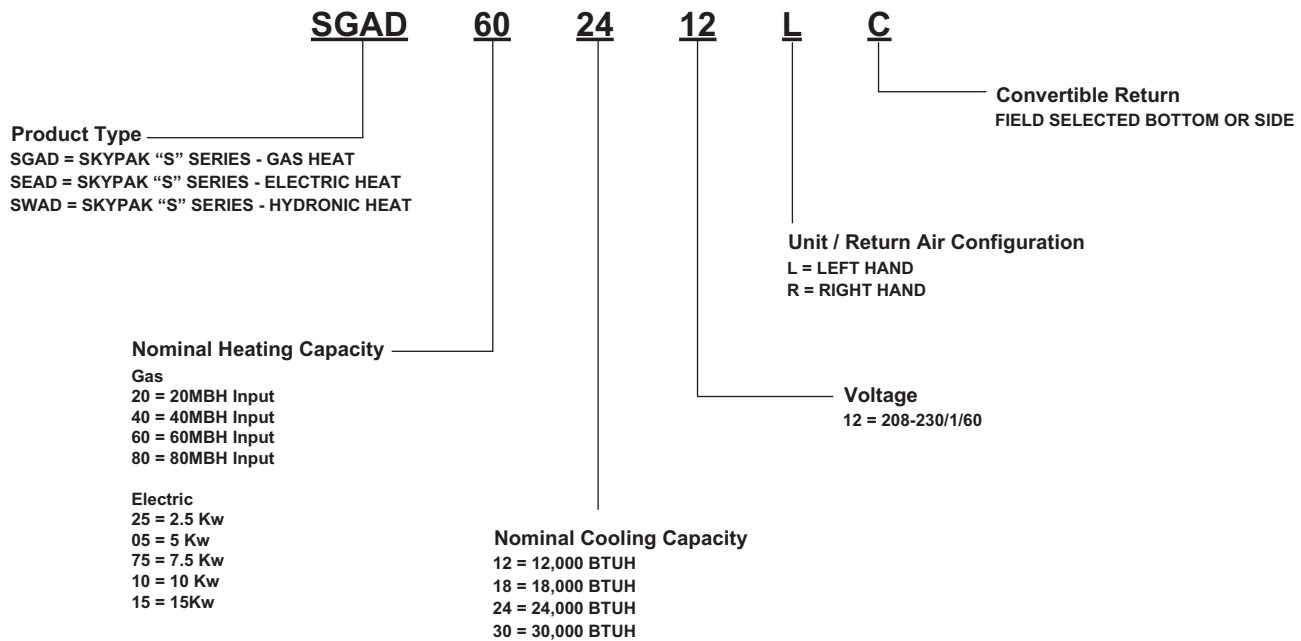
- Available in natural gas (direct vent), electric heating, or hot water heating.
- Gas input ratings of 20,000, 40,000, 60,000, and 80,000 BTUH.
- Cooling capacity from 12,000 to 29,000 BTUH.
- R-410A refrigerant.
- Every unit rigorously factory tested for quality control.
- Allows independent metering and temperature control, eliminating building wide service shut downs as encountered with conventional systems.
- Aluminized steel tubular heat exchanger provides 80.3% AFUE.
- Power vented through wall sleeve, eliminating chimney.
- High efficiency scroll or rotary compressor (rotary in 12,000 BTUH models).
- Convenient indoor access to all parts and service needs, eliminating bulky chassis removal and spares.
- Left hand or right hand unit configuration.
- Exterior grilles available in five standard colors – or custom match (optional).

Listings / Certifications

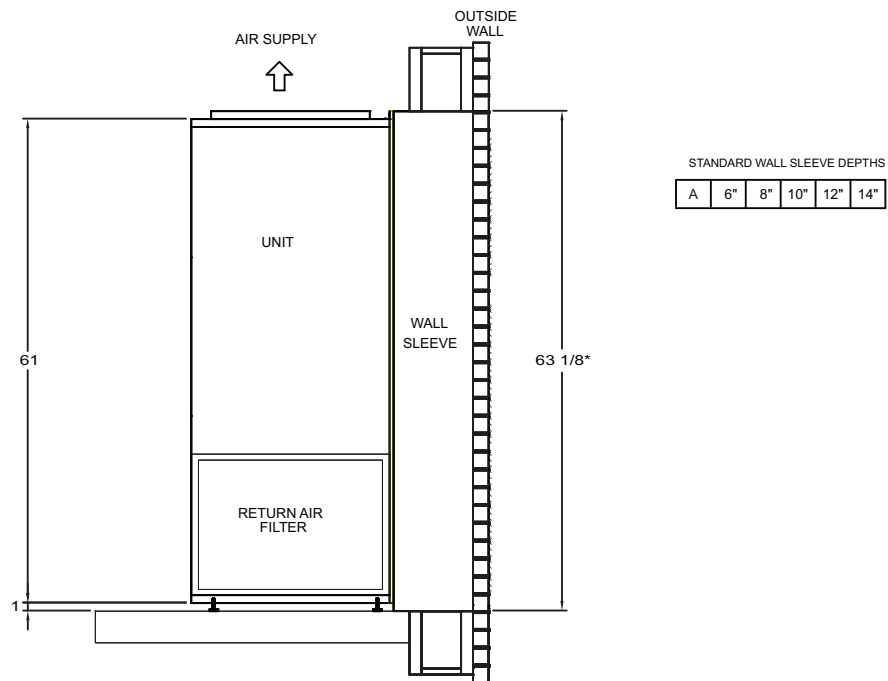
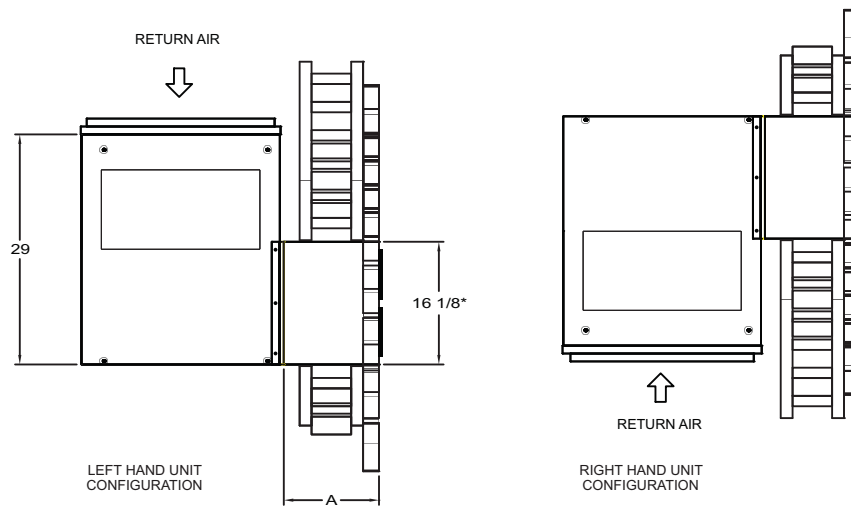


NOMENCLATURE

SKYPAK Self-Contained Heating/Cooling Unit



SKYPAK APPLICATION AND INSTALLATION



* ROUGH-IN OPENING DIMENSIONS

SGAD GENERAL DATA

BASE MODEL NUMBER	SGAD201212	SGAD401212	SGAD401812	SGAD601812
HEATING SECTION (NAT. GAS)	208-230/1/60			
RATED INPUT – Btu/hr	20,000	40,000	40,000	60,000
OUTPUT CAPACITY –Btu/hr	16,160	32,320	32,320	48,480
CFM (MOTOR SPEED)	350 (MED-LO)	525 (HI)	600 (MED)	675 (HI)
AFUE	80.30%	80.30%	80.30%	80.30%
COOLING SECTION (R-410A)	208-230/1/60 (197 MIN. OPER. VOLTS)			
BTU/HR T.C.*	12,000	12,000	17,800	17,800
BTU/HR SENSIBLE	9,300	9,300	13,700	13,700
CFM AT .30" E.S.P	425	425	650	650
EFFICIENCY (EER)	9.0	9.0	9.0	9.0
COMPRESSOR R.L.A.	4.7	4.7	10	10
COMPRESSOR L.R.A.	25	25	48	48
MIN. CIRCUIT AMPACITY	7.78	8.18	14.8	14.8
MAX FUSE/CCT. BKR.	15	15	20	20
FILTER SIZE / TYPE**	24 in. x 34 in. / 1 inch Thick REPLACEABLE MEDIA			
APPROX. SHIP. WEIGHT	295	295	335	335

BASE MODEL NUMBER	SGAD402412	SGAD602412	SGAD603012	SGAD803012
HEATING SECTION (NAT. GAS)	208-230/1/60			
RATED INPUT – Btu/hr	40,000	60,000	60,000	80,000
OUTPUT CAPACITY –Btu/hr	32,320	48,480	48,480	64,640
CFM (MOTOR SPEED)	600 (LO)	700 (MED)	700 (LO)	800 (MED)
AFUE	80.30%	80.30%	80.30%	80.30%
COOLING SECTION (R-410A)	208-230/1/60 (197 MIN. OPER. VOLTS)			
BTU/HR T.C.*	23,400	23,400	27,400	27,400
BTU/HR SENSIBLE	18,400	18,400	22,000	22,000
CFM AT .30" E.S.P	825	825	1025	1025
EFFICIENCY (EER)	9.0	9.0	9.0	9.0
COMPRESSOR R.L.A.	12.8	12.8	15.7	15.7
COMPRESSOR L.R.A.	58.3	58.3	73	73
MIN. CIRCUIT AMPACITY	19.00	19.00	23.03	23.03
MAX FUSE/CCT. BKR.	30	30	35	35
FILTER SIZE / TYPE**	24 in. x 34 in. / 1 inch Thick REPLACEABLE MEDIA			
APPROX. SHIP. WEIGHT	345	345	365	365

CAUTION: COOLING SECTION OF THIS UNIT SHOULD NOT BE OPERATED WHEN OUTSIDE TEMPERATURE IS BELOW 60°F

PERFORMANCE TESTED AND CERTIFIED IN ACCORDANCE WITH AHRI STANDARD 390. RATING CONDITIONS OF 95°F OUTDOOR AMBIENT, AND 80°F db / 67°F wb INDOOR AIR TEMPERATURE

* T.C. = NET COOLING CAPACITY (HEAT DISSIPATION FROM FAN MOTOR INCLUDED)

** FACTORY SUPPLIED

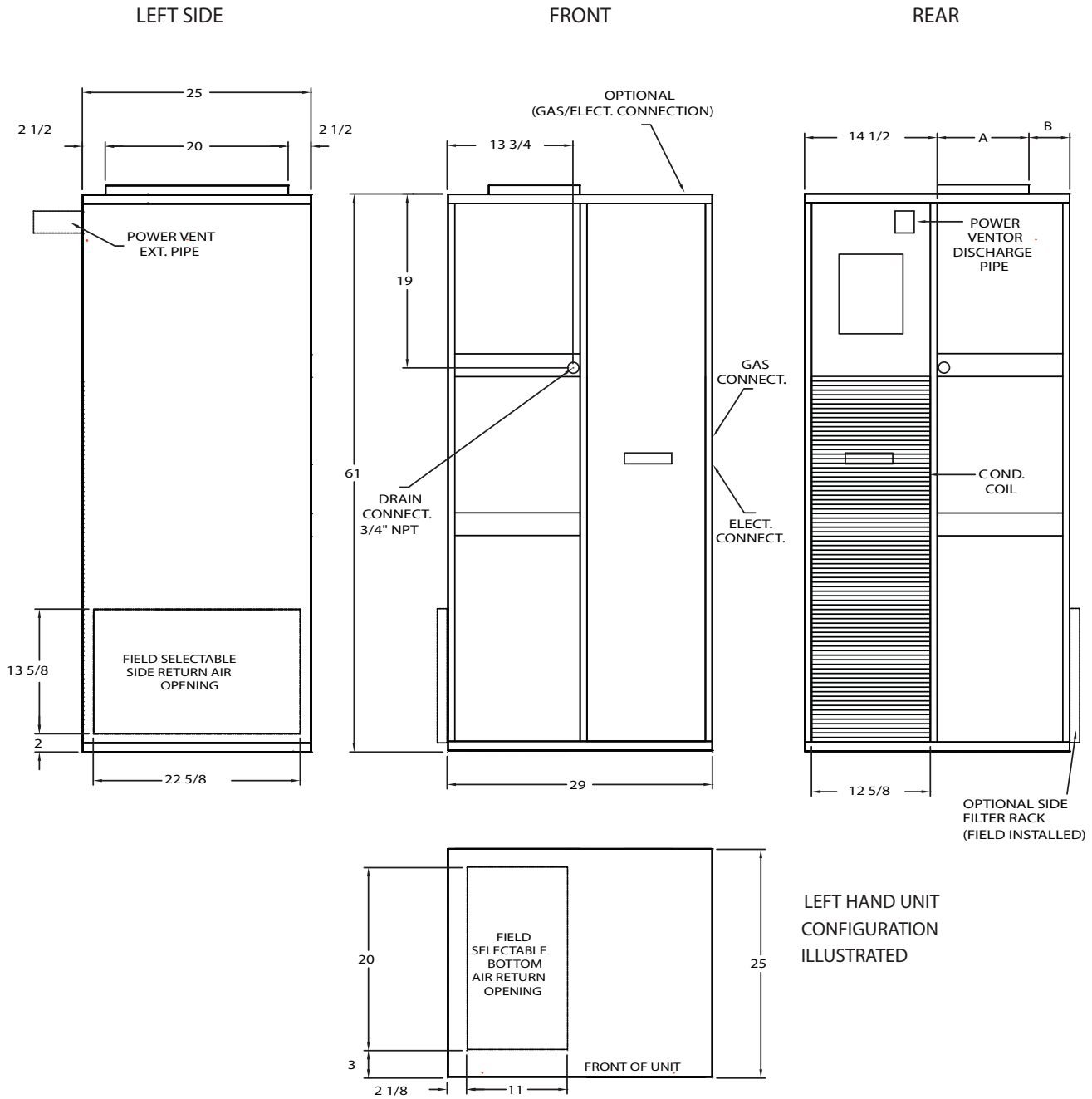
SGAD PERFORMANCE DATA

UNIT MODEL	SPEED TAP	EXTERNAL STATIC PRESSURE (in. wg.)				
		0.1	0.2	0.3	0.4	0.5
SGAD201212	HIGH	560	530	500	460	410
	MED-HI	450	428	403	370	337
	MED-LO	370	352	328	305	270
	LOW	305	290	271	250	210
SGAD401212	HIGH	600	575	540	500	450
	MEDIUM	555	525	490	450	405
	LOW	460	430	400	365	325
SGAD**1812	HIGH	795	760	715	665	600
	MEDIUM	720	690	650	585	500
	LOW	520	505	485	460	425
SGAD**2412	HIGH	900	860	820	780	740
	MEDIUM	805	770	735	700	660
	LOW	730	710	685	655	625
SGAD**3012	HIGH	1060	1020	980	936	885
	MEDIUM	835	820	805	784	760
	LOW	740	725	710	695	676

SGAD ELECTRICAL DATA

MODEL #	VOLTAGE	COMPRESSOR				EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	(MOP)	MAX FUSE / CCT. BKR. AMP
		QTY	@	RLA	LRA	HP	FLA	HP	FLA			
SGAD201212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	7.78	12.48	15
SGAD401212	208-230/1/60	1	@	4.7	25.0	0.17	1.2	0.17	1.1	8.18	12.88	15
SGADXX1812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	14.80	24.80	20
SGADXX2412	208-230/1/60	1	@	12.8	58.3	0.25	1.5	0.25	1.5	19.00	31.80	30
SGADXX3012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	23.03	38.73	35

SGAD DIMENSIONAL DATA



LEFT HAND UNIT CONFIGURATION ILLUSTRATED

IMPORTANT: POWER VENTOR DISCHARGE PIPE MUST TERMINATE 1"-1 1/4" FROM EXTERIOR GRILLE/LOUVRE.
 MINIMUM CLEARANCES - FROM COMBUSTIBLE MATERIALS

TOP	SIDES	BACK	FRONT	FLUE
0"	0"	0"	1"	10"

For Installation on combustible flooring
 For Installation in an alcove or closet
 Minimum clearance for service access - 24" to front of unit

UNIT COOLING CAPACITY (Btuh)	A	B
12,000 + 18,000	8"	6.50"
24,000 + 30,000	10.00"	4.50"

SEAD GENERAL DATA

MODEL NUMBER	SEAD251212	SEAD051212	SEAD751212	SEAD051812	SEAD751812	SEAD101812
ELECTRIC HEAT SECTION	208-230/1/60					
KW Total – 208/230	2.10 / 2.57	4.20 / 5.14	6.30 / 7.71	4.20 / 5.14	6.30 / 7.71	8.41 / 10.28
NO. OF ELEMENTS	1	1	2	1	2	2
CFM (MOTOR SPEED)	300 (LO)	400 (MED)	600 (HI)	500 (LO)	600 (MED)	700 (HI)
HEATING OUTPUT MBTU / HR	7.1 / 8.7	14.3 / 17.5	21.5 / 26.3	14.3 / 17.5	21.5 / 26.3	28.7 / 35.1
COOLING SECTION (R-410A)	208-230/1/60 (197 MIN. OPER. VOLTS)					
BTU/HR T.C.*	12,000			17,800		
BTU/HR SENSIBLE	9,300			13,700		
CFM AT .30" E.S.P	425			625		
EFFICIENCY (E.E.R.)	9.0			9.0		
COMPRESSOR R.L.A.	4.7			10		
COMPRESSOR L.R.A.	25			48		
MIN. CIRCUIT AMPACITY 208V	13.62	26.3	38.92	26.8	39.42	52.1
MAX FUSE/CCT. BKR. 208V	15	30	40	30	40	60
MIN. CIRCUIT AMPACITY 230V	14.97	28.93	42.9	29.43	43.4	57.37
MAX FUSE/CCT. BKR. 230V	15	30	45	30	45	60
FILTER SIZE / TYPE**	24 in. x 34 in. / 1 inch Thick REPLACEABLE MEDIA					
APPROX. SHIP. WEIGHT	270			305		

MODEL NUMBER	SEAD752412	SEAD102412	SEAD152412	SEAD753012	SEAD103012	SEAD153012
ELECTRIC HEAT SECTION	208-230/1/60					
KW Total – 208/230	6.30 / 7.71	8.41 / 10.28	12.61 / 15.42	6.30 / 7.71	8.41 / 10.28	12.61 / 15.42
NO. OF ELEMENTS	2	2	3	2	2	3
CFM (MOTOR SPEED)	700 (LO)	800 (MED)	800 (MED)	700 (LO)	800 (MED)	800 (MED)
HEATING OUTPUT MBTU / HR	21.5 / 26.3	28.7 / 35.1	43.0 / 52.6	21.5 / 26.3	28.7 / 35.1	43.0 / 52.6
COOLING SECTION (R-410A)	208-230/1/60 (197 MIN. OPER. VOLTS)					
BTU/HR T.C.*	23,400			27,400		
BTU/HR SENSIBLE	18,400			22,000		
CFM AT .30" E.S.P	825			1025		
EFFICIENCY (E.E.R.)	9.0			9.0		
COMPRESSOR R.L.A.	12.8			15.7		
COMPRESSOR L.R.A.	58.3			73		
MIN. CIRCUIT AMPACITY 208V	39.42	52.48	77.78	39.8	52.48	77.78
MAX FUSE/CCT. BKR. 208V	40	60	80	40	60	80
MIN. CIRCUIT AMPACITY 230V	43.40	57.74	85.68	43.78	57.74	85.68
MAX FUSE/CCT. BKR. 230V	45	60	90	45	60	90
FILTER SIZE / TYPE**	24 in. x 34 in. / 1 inch Thick REPLACEABLE MEDIA					
APPROX. SHIP. WEIGHT	325			345		

CAUTION: COOLING SECTION OF THIS UNIT SHOULD NOT BE OPERATED WHEN OUTSIDE TEMPERATURE IS BELOW 60°F

PERFORMANCE TESTED AND CERTIFIED IN ACCORDANCE WITH AHRI STANDARD 390. RATING CONDITIONS OF 95°F OUTDOOR AMBIENT, AND 80°F db / 67°F wb INDOOR AIR TEMPERATURE

* T.C. = NET COOLING CAPACITY (HEAT DISSIPATION FROM FAN MOTOR INCLUDED)

** FACTORY SUPPLIED

SEAD PERFORMANCE DATA

UNIT MODEL	SPEED TAP	EXTERNAL STATIC PRESSURE (in. wg.)				
		0.1	0.2	0.3	0.4	0.5
SEAD**1212	HIGH	565	540	510	470	420
	MED-HI	470	455	435	405	365
	MED-LO	375	370	365	340	300
	LOW	310	305	285	260	215
SEAD**1812	HIGH	810	775	725	670	610
	MEDIUM	725	700	655	595	510
	LOW	535	525	515	500	465
SEAD052412 SEAD752412	HIGH	915	875	835	795	755
	MEDIUM	810	780	745	705	670
	LOW	735	715	685	655	625
SEAD102412 SEAD152412	HIGH	1070	1020	975	910	845
	MEDIUM	935	910	880	830	785
	LOW	820	815	800	765	720
SEAD**3012	HIGH	1070	1020	975	910	845
	MEDIUM	935	910	880	830	785
	LOW	820	815	800	765	720

SEAD ELECTRICAL DATA

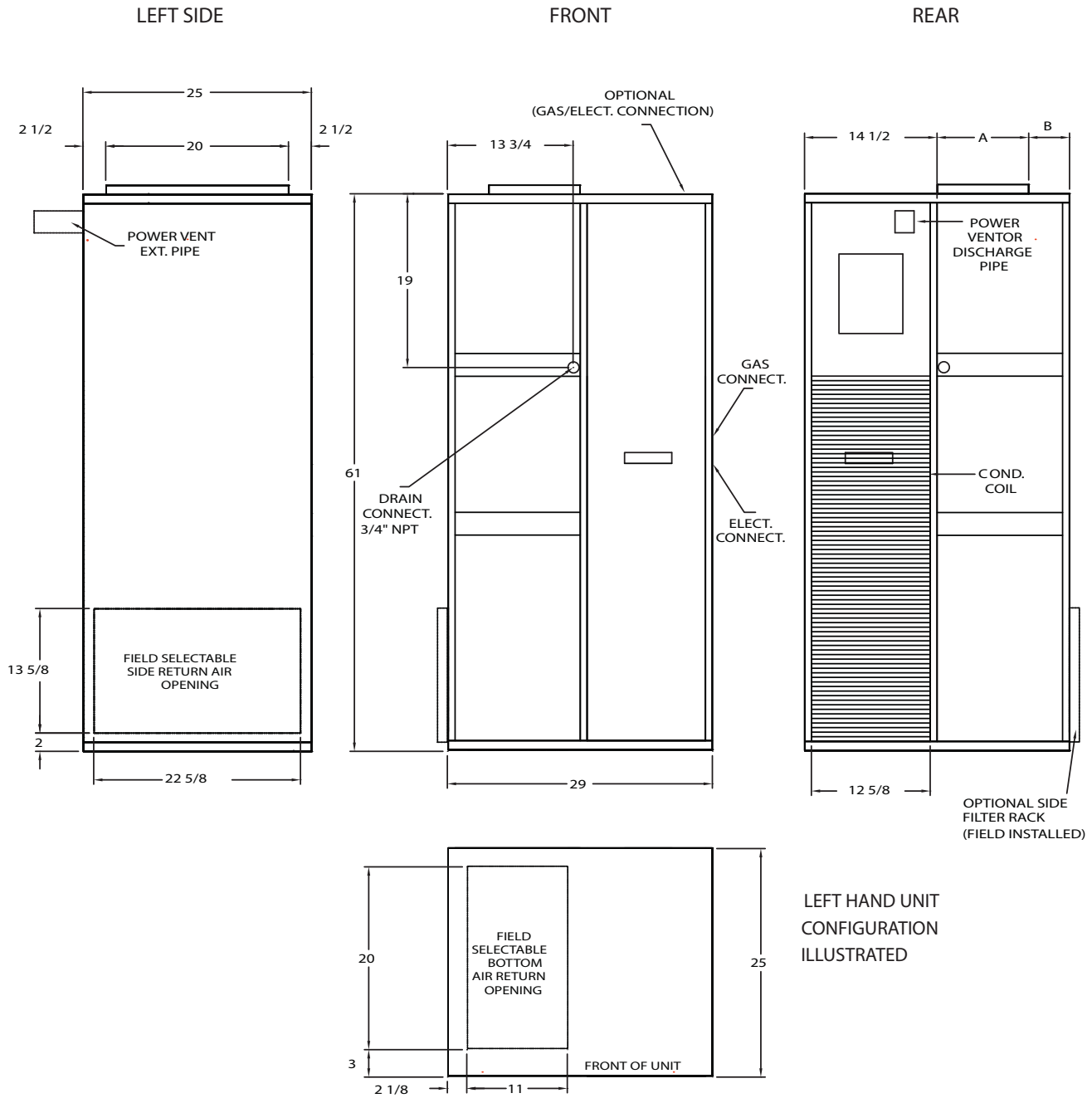
ELECTRICAL DATA - ELECTRIC HEAT / AIR COOLED UNITS 208 VOLTS

MODEL #	VOLTAGE	COMPRESSOR				EVAPORATOR FAN		CONDENSER FAN		HEATER KW	MCA COOLING	MCA HEATING	MIN.CCT AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY		RLA	LRA	HP	FLA	HP	FLA	@208 V				
SEAD251212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	2.10	7.78	13.62	13.62	15
SEAD051212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	4.21	7.78	26.30	26.30	30
SEAD751212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	6.31	7.78	38.92	38.92	40
SEAD051812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	4.21	14.80	26.80	26.80	30
SEAD751812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	6.31	14.80	39.42	39.42	40
SEAD101812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	8.42	14.80	52.10	52.10	60
SEAD052412	208-230/1/60	1	@	12.8	58.3	0.17	1.2	0.25	1.5	4.21	18.70	26.80	26.80	30
SEAD752412	208-230/1/60	1	@	12.8	58.3	0.17	1.2	0.25	1.5	6.31	18.70	39.42	39.42	40
SEAD102412	208-230/1/60	1	@	12.8	58.3	0.25	1.5	0.25	1.5	8.42	19.00	52.48	52.48	60
SEAD152412	208-230/1/60	1	@	12.8	58.3	0.25	1.5	0.25	1.5	12.63	19.00	77.78	77.78	80
SEAD753012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	6.31	23.03	39.80	39.80	40
SEAD103012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	8.42	23.03	52.48	52.48	60
SEAD153012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	12.63	23.03	77.78	77.78	80

ELECTRICAL DATA - ELECTRIC HEAT / AIR COOLED UNITS 230 VOLTS

MODEL #	VOLTAGE	COMPRESSOR				EVAPORATOR FAN		CONDENSER FAN		HEATER KW	MCA COOLING	MCA HEATING	MIN.CCT AMPACITY	MAX FUSE / CCT. BKR. AMP
		QTY		RLA	LRA	HP	FLA	HP	FLA	@208 V				
SEAD251212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	2.57	7.78	14.97	14.97	15
SEAD051212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	5.14	7.78	28.93	28.93	30
SEAD751212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	7.71	7.78	42.90	42.90	45
SEAD051812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	5.14	14.80	29.43	29.43	30
SEAD751812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	7.71	14.80	43.40	43.40	45
SEAD101812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	10.28	14.80	57.37	57.37	60
SEAD052412	208-230/1/60	1	@	12.8	58.3	0.17	1.2	0.25	1.5	5.14	18.70	29.43	29.43	30
SEAD752412	208-230/1/60	1	@	12.8	58.3	0.17	1.2	0.25	1.5	7.71	18.70	43.40	43.40	45
SEAD102412	208-230/1/60	1	@	12.8	58.3	0.25	1.5	0.25	1.5	10.28	19.00	57.74	57.74	60
SEAD152412	208-230/1/60	1	@	12.8	58.3	0.25	1.5	0.25	1.5	15.42	19.00	85.68	85.68	90
SEAD753012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	7.71	23.03	43.78	43.78	45
SEAD103012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	10.28	23.03	57.74	57.74	60
SEAD153012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	15.42	23.03	85.68	85.68	90

SEAD DIMENSIONAL DRAWINGS



LEFT HAND UNIT CONFIGURATION ILLUSTRATED

IMPORTANT: POWER VENTOR DISCHARGE PIPE MUST TERMINATE 1'-1 1/4" FROM EXTERIOR GRILLE/LOUVRE.

MINIMUM CLEARANCES - FROM COMBUSTIBLE MATERIALS

TOP	SIDES	BACK	FRONT	FLUE
0"	0"	0"	1"	10"

For Installation on combustible flooring
 For Installation in an alcove or closet
 Minimum clearance for service access - 24" to front of unit

UNIT COOLING CAPACITY (Btuh)	A	B
12,000 + 18,000	8"	6.50"
24,000 + 30,000	10.00"	4.50"

SWAD GENERAL DATA

MODEL NUMBER	SWAD012	SWAD018	SWAD024	SWAD030
HEATING SECTION	HOT WATER COIL			
AREA /ROWS / FPI	2.43 / 2 / 14			
FLOW RANGE (USGPM)	3 - 6			
WATER CONNECTION SIZE	1/2 in FPT			
COOLING SECTION (R-410A)	208-230/1/60 (197 MIN. OPER. VOLTS)			
BTU/HR T.C.*	12,000	17,800	23,400	27,400
BTU/HR SENSIBLE	9,300	13,700	19,400	22,000
CFM AT .30" E.S.P	425	650	825	1025
EFFICIENCY (E.E.R.)	9.0	9.0	9.0	9.0
COMPRESSOR R.L.A.	4.7	10.0	12.8	15.7
COMPRESSOR L.R.A.	25	48.0	58.3	73.0
MIN. CIRCUIT AMPACITY	7.78	14.80	19.00	23.03
MAX. FUSE SIZE	15	20	30	35
FILTER SIZE / TYPE**	24 in. x 34 in. / 1 inch Thick REPLACEABLE MEDIA			
APPROX. SHIP WHT (LBS.)	285	325	340	350

CAUTION: COOLING SECTION OF THIS UNIT SHOULD NOT BE OPERATED WHEN OUTSIDE TEMPERATURE IS BELOW 60°F

PERFORMANCE TESTED AND CERTIFIED IN ACCORDANCE WITH AHRI STANDARD 390. RATING CONDITIONS OF 95°F OUTDOOR AMBIENT, AND 80°F db / 67°F wb INDOOR AIR TEMPERATURE

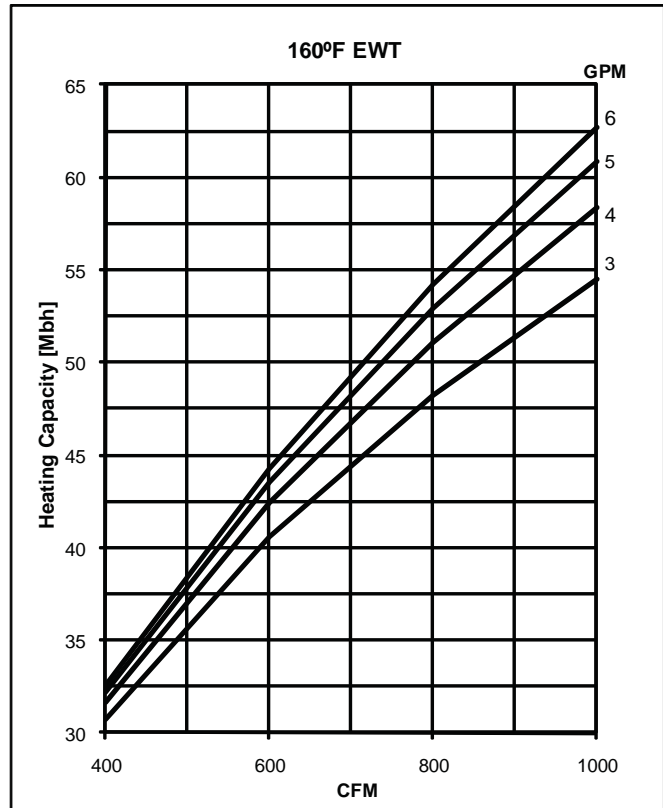
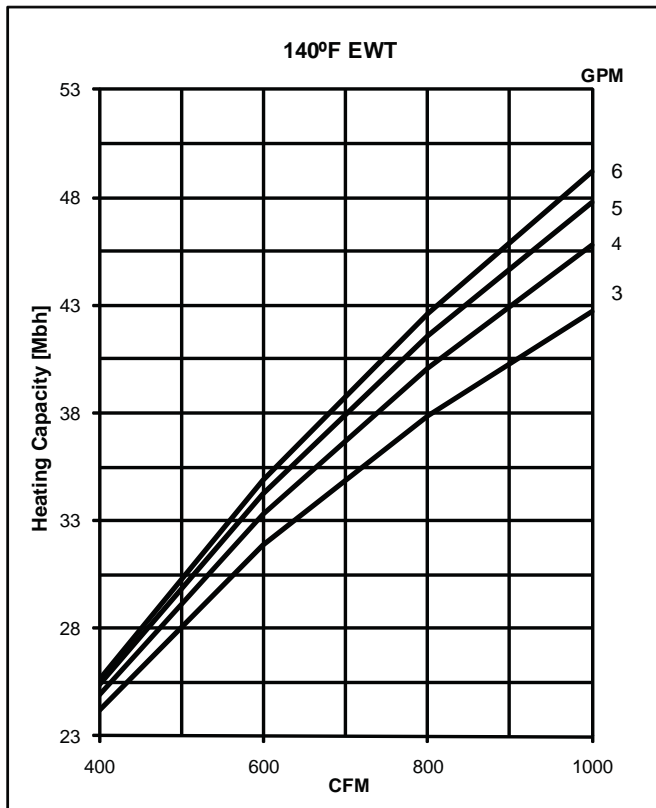
* T.C. = NET COOLING CAPACITY (HEAT DISSIPATION FROM FAN MOTOR INCLUDED)

** FACTORY SUPPLIED

SWAD PERFORMANCE DATA

UNIT MODEL	SPEED TAP	EXTERNAL STATIC PRESSURE (in. wg.)				
		0.1	0.2	0.3	0.4	0.5
SWAD02412	HIGH	600	575	540	500	450
	MEDIUM	555	525	490	450	405
	LOW	460	430	400	365	325
SWAD01812	HIGH	795	760	715	665	600
	MEDIUM	720	690	650	585	500
	LOW	520	505	485	460	425
SWAD02412	HIGH	900	860	820	780	740
	MEDIUM	805	770	735	700	660
	LOW	730	710	685	655	625
SWAD03012	HIGH	1060	1020	980	936	885
	MEDIUM	835	820	805	784	760
	LOW	740	725	710	695	676

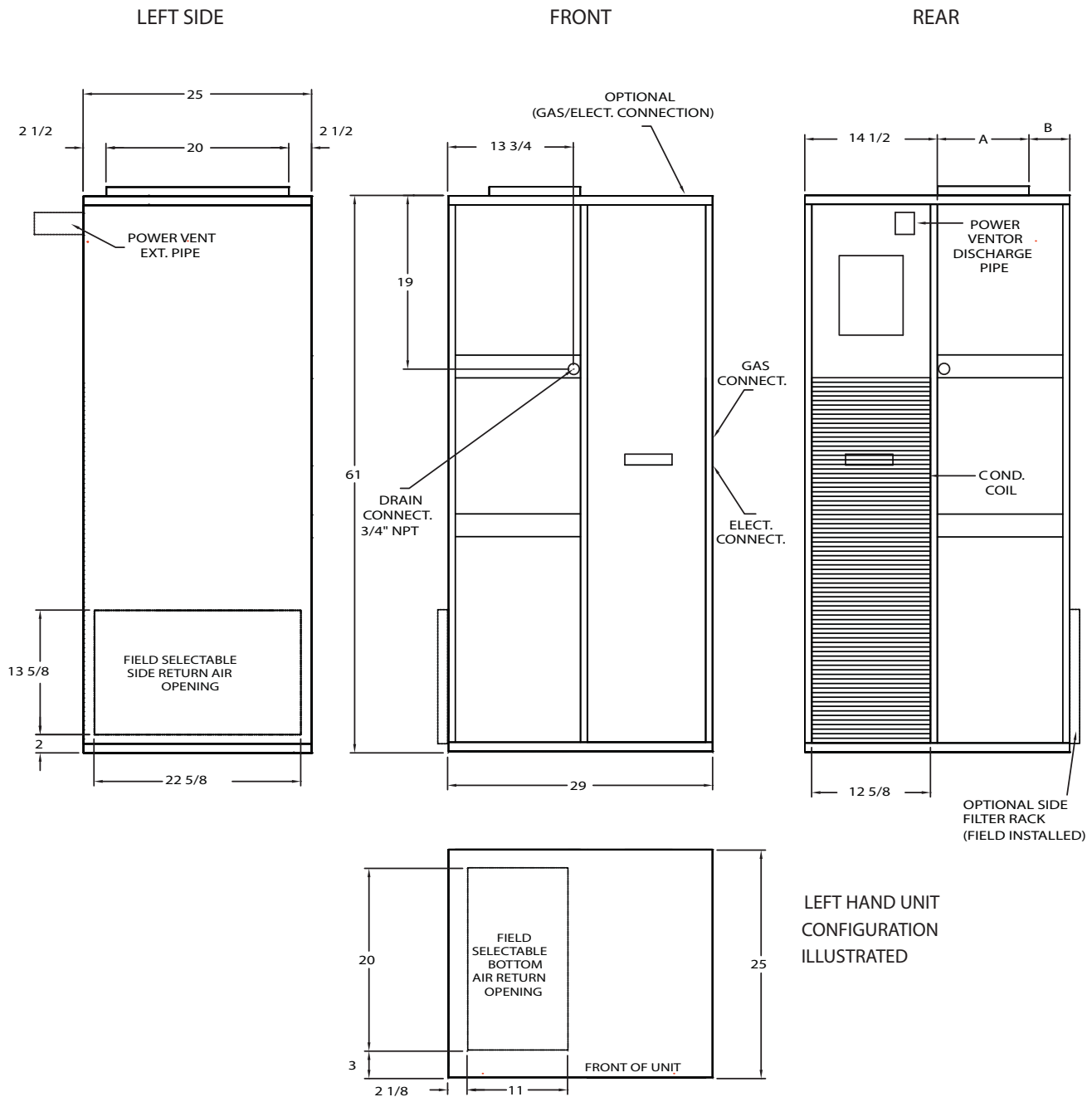
HEATING COIL PERFORMANCE—65 degree Entering Air Temperature



SWAD ELECTRICAL DATA

MODEL #	VOLTAGE	COMPRESSOR				EVAPORATOR FAN		CONDENSER FAN		MIN. CCT. AMPACITY	(MOP)	MAX FUSE / CCT. BKR. AMP
		QTY		RLA	LRA	HP	FLA	HP	FLA			
SWADXXX1212	208-230/1/60	1	@	4.7	25.0	0.10	0.8	0.17	1.1	7.78	12.48	15
SWADXXX1812	208-230/1/60	1	@	10.0	48.0	0.17	1.2	0.17	1.1	14.80	24.80	20
SWADXXX2412	208-230/1/60	1	@	12.8	58.3	0.25	1.5	0.25	1.5	19.00	31.80	30
SWADXXX3012	208-230/1/60	1	@	15.7	73.0	0.25	1.5	0.33	1.9	23.03	38.73	35

SWAD DIMENSIONAL DRAWINGS



LEFT HAND UNIT CONFIGURATION ILLUSTRATED

IMPORTANT: POWER VENTOR DISCHARGE PIPE MUST TERMINATE 1'-1 1/4" FROM EXTERIOR GRILLE/LOUVRE.

MINIMUM CLEARANCES - FROM COMBUSTIBLE MATERIALS

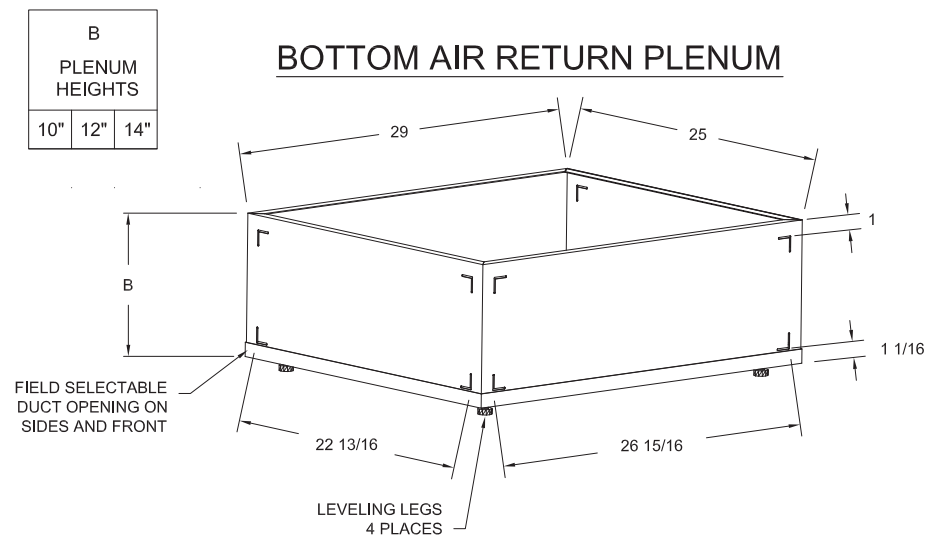
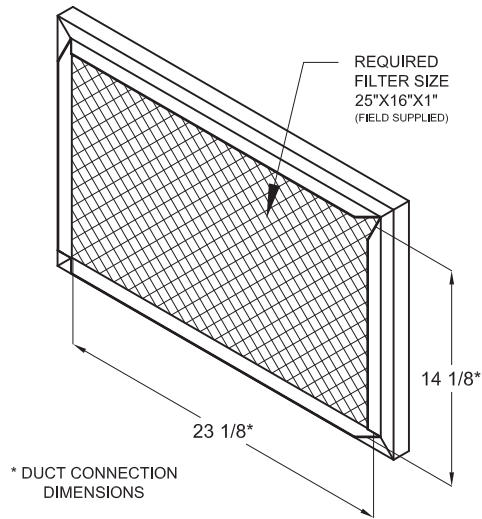
TOP	SIDES	BACK	FRONT	FLUE
0"	0"	0"	1"	10"

For Installation on combustible flooring
 For Installation in an alcove or closet
 Minimum clearance for service access - 24" to front of unit

UNIT COOLING CAPACITY (Btuh)	A	B
12,000 + 18,000	8"	6.50"
24,000 + 30,000	10.00"	4.50"

INSTALLATION ACCESSORIES

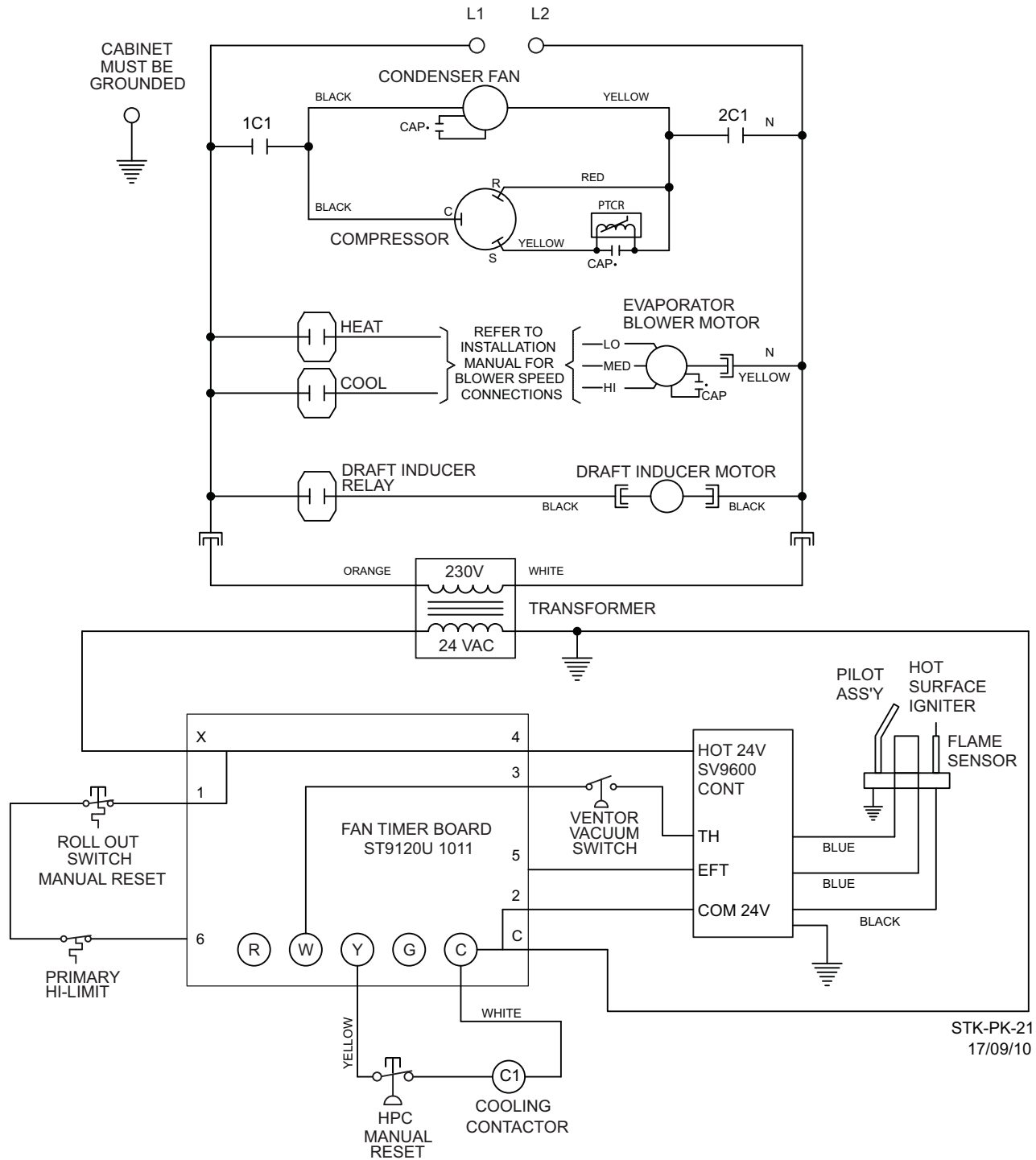
OPTIONAL SKYPAK SIDE RETURN FILTER FRAME



WIRING DIAGRAMS

SGAD GAS FURNACE WIRING DIAGRAM

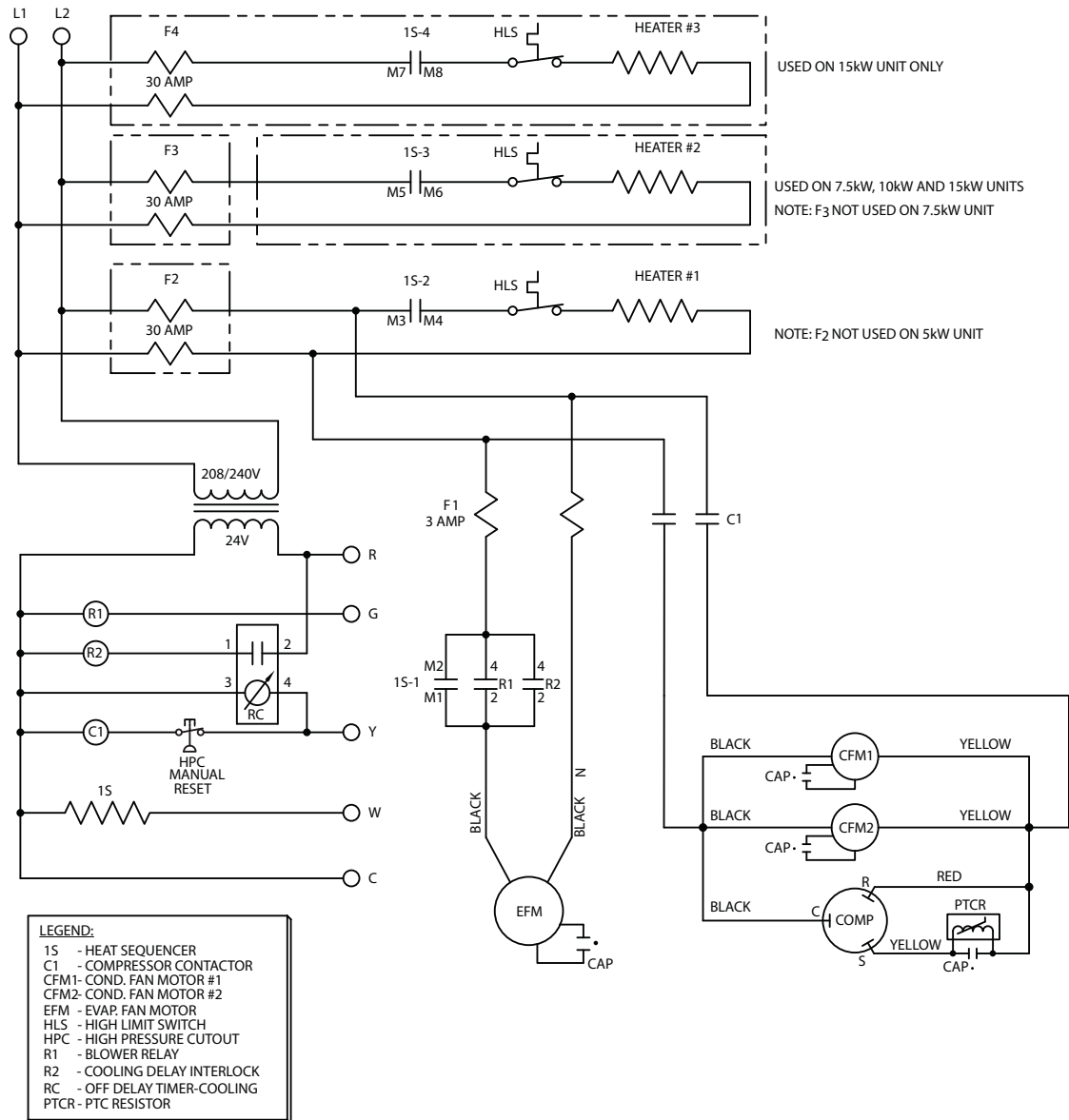
208-230V/1/60



WIRING DIAGRAMS

SEAD ELECTRIC HEAT WIRING DIAGRAM

208-230V/1/60

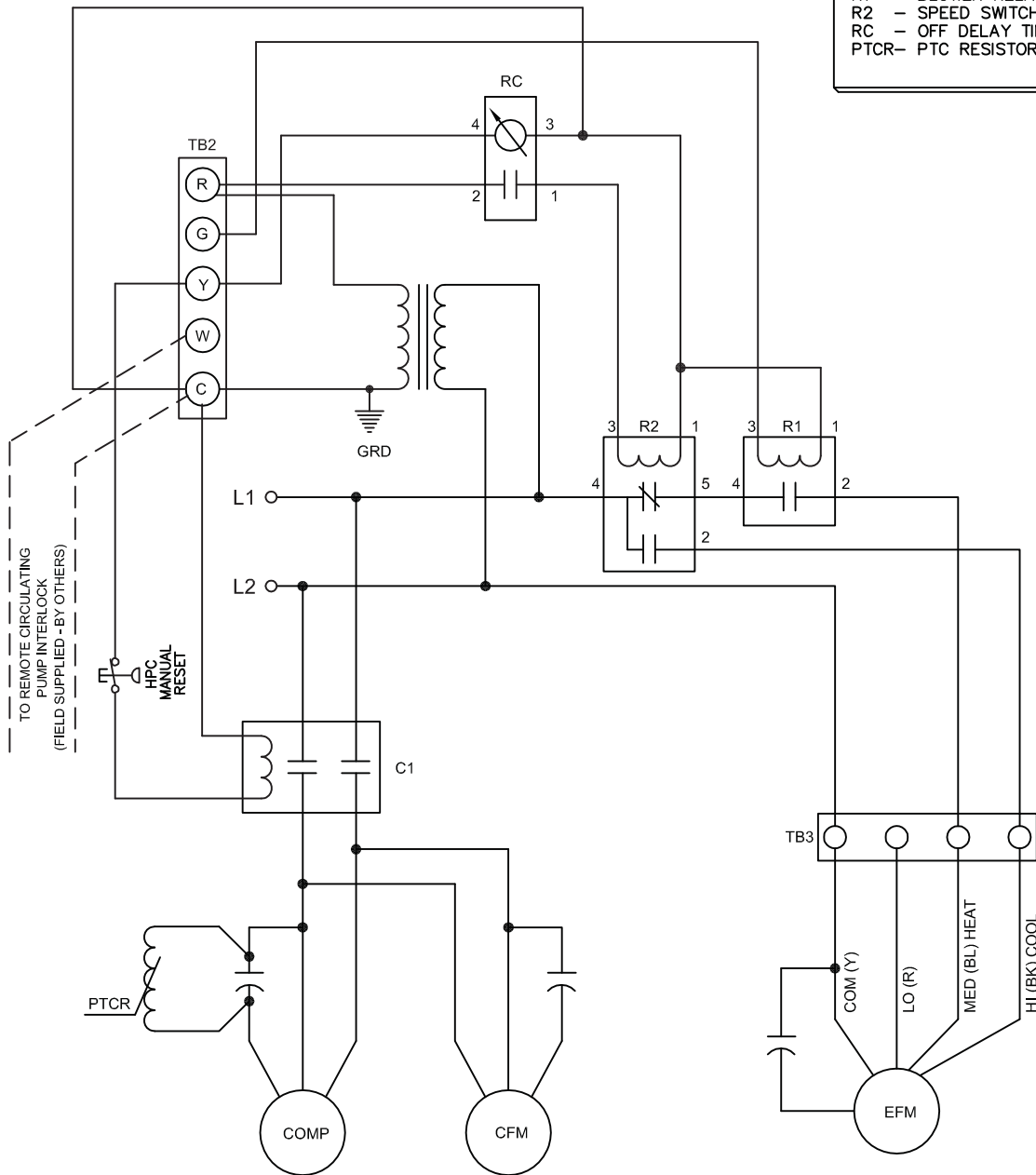


WIRING DIAGRAMS

SWAD HYDRONIC HEAT WIRING DIAGRAM

208-230V/1/60

- LEGEND:**
- C1 - COMPRESSOR CONTACTOR
 - CFM - COND. FAN MOTOR
 - EFM - EVAP. FAN MOTOR
 - R1 - BLOWER RELAY
 - R2 - SPEED SWITCHING RELAY
 - RC - OFF DELAY TIMER-COOLING
 - PTCR- PTC RESISTOR



SKYPAK GUIDE SPECIFICATIONS

GENERAL

All SKYPAK models feature a complete heating, cooling, and air handling system in one self-contained assembly. Units are shipped completely factory assembled, tested, and ready for field connection. The unit casing is made entirely of heavy gauge galvanized steel. The cabinet interior is insulated with foil faced fiberglass insulation, firmly attached with nonflammable adhesive, to prevent heat loss or gain to the interior space. All operating components of the mechanical systems are completely enclosed in the insulated cabinet to minimize sound transmission.

Units are designed for freestanding floor mounting, in conjunction with the companion wall sleeve. Airflow orientation is up-flow, top discharge. Units may be ordered in either left hand, or right hand, return air configuration. The return air opening is field selectable for side intake or bottom intake; a pre-scored intake-opening panel requires removal from either the evaporator side panel, or the unit bottom panel.

An optional bottom return air plenum is available to allow alternate return air duct layouts. The outdoor wall grille is available in five standard colors, or may be custom color matched.

COOLING SECTION

All models utilize a high efficiency rotary or scroll type compressor. Each refrigeration circuit is thoroughly evacuated, and fully charged with R-410A refrigerant before shipment. Internal compressor-motor overload protection is standard. Compressors are mounted on rubber isolators to minimize vibration transmission. A compressor start assist device is included to ensure reliable compressor operation in the event of low supply voltage.

The refrigeration circuit includes an externally equalized thermal expansion valve, liquid line filter drier, a high refrigerant pressure switch (manual-reset), and service gauge ports. The evaporator and condenser coils are constructed of internally enhanced copper tubes mechanically bonded to enhanced aluminum plate fins. The evaporator coil is employed in a blow-through configuration. Large evaporator coil face areas maximize efficiency and cooling performance.

INDOOR AND OUTDOOR FANS

Forward curved, double inlet and double width, direct-drive centrifugal blowers are used for evaporator and condenser air movement. Large diameter wheels are employed to provide required airflow performance at minimum sound levels. Blower wheels are fabricated of galvanized steel. Fan motors are PSC types, with minimum three speeds on the evaporator motor. The PSC motors feature permanently lubricated bearings and internal thermal overload protection.

HEATING OPTIONS

SGAD – Direct Vent Gas Furnace Section

The gas-fired heat exchanger is a tubular aluminized steel design with no-weld construction. The burner section is of the in-shot design, with hot surface ignition. All air for combustion is drawn through the outside wall grille. Flue gases are power vented through the upper wall grille section. Furnace controls include a high limit switch, flame roll out sensor, proved ignition sensor, ventor motor safety switch, and an indoor blower control module. The unit controls are factory wired to a low voltage terminal strip, for connection to a single stage heat/cool thermostat.

SEAD – Electric Furnace Section

Electric heating elements consist of resistance-type nickel-chrome wire supported in ceramic holders. The bare wire elements are exposed directly in the air stream resulting in instant heat transfer, lower element temperatures, and long service life. Each heavy-gauge element frame is equipped with an auto reset limit control, and elements are individually removable for service. Relays bring the heating elements on and off, in sequence and equal increments, with a time delay between each element. In addition, relays initiate or stop blower operation, or change blower speed. The unit controls are factory wired to a low-voltage terminal strip, for connection to single stage heat/cool thermostat.

SWAD – Hot Water Heat Section

The two-row hot water heating coil is constructed of copper tubes mechanically bonded to aluminum plate fins. The large coil face area ensures maximum heat transfer from the hot water supply.

SKYPAK GUIDE SPECIFICATIONS

The unit controls are factory wired to allow voltage terminal strip, for connection to a single stage heat/cool thermostat.

FILTERS

All models are shipped complete with an internal, suspended wire-frame style filter rack, for use with

replaceable filter media. A one-inch thick fiberglass media filter is factory provided (Media Size = 24" Wide X 34" Long).

An optional flat-panel filter rack is available for field installation on units employing the side return air intake. A one-inch thick throwaway filter must be field provided (Flat Filter Size = 16 X 25 X 1).

NOTES

Printed on recycled paper

Form: 145.00-EG6 (1211) Supersedes: Nothing
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www.johnsoncontrols.com

