PRPAC16
PRODUCT SPECIFICATIONS

TWO STAGE COMPRESSOR
VARIABLE SPEED BLOWER

FORM NO. PRPAC16-100 (11/2016)

MODEL NUMBER

PRP AC 16 36 - P - 1 A

PRODUCT TYPE
PRP = RESIDENTIAL PACKAGED UNIT

UNIT TYPE
AC = ELECTRIC / ELECTRIC UNIT

NOMINAL SEER
16 = 16 SEER

NOMINAL COOLING CAPACITY
24 = 2 TONS
36 = 3 TONS
48 = 4 TONS
60 = 5 TONS

VOLTAGE
P = 208/230V-1PHASE-60HZ

MAJOR REVISION SEQUENCE
1 = 1ST GENERATION

MINOR REVISION SEQUENCE
A = 1ST GENERATION

FEATURES AND BENEFITS

WARRANTY

10 year limited parts and compressor warranty. See limited warranty document for details.

APPLICATIONS

Designed for outdoor installations at ground level or rooftop for residential and light commercial applications.

APPROVALS

AHRI Certified to AHRI Standard 210/240-2008.

Units are design certified by ETL Intertek.

Cooling system rated according to DOE test procedures.

Units are ETL certified for the U.S. and Canada.

Packaged unit and components within bonded for grounding to meet safety standards required by UL.

Each unit test operated at the factory before shipment ensuring dependable operation at start-up.

ELECTRIC HEAT (5-20 KW)

Field install internal to unit cabinet.

Available in several voltages and kw sizes.

Helix wound nichrome heating elements exposed directly in air stream resulting in instant heat transfer, low element temperatures and long service life.

Cutoff limit control provides positive protection in case of excessive temperatures.

Factory assembled with controls installed and wired.

REFRIGERATION SYSTEM

R-410A Refrigerant

Non-chlorine, ozone friendly, R-410A.

Unit pre-charged with refrigerant.

See Specification table.

Evaporator and Condenser Coils

Copper tube with aluminum fin coils.

Anti-Microbial Evaporator Coil Drain Pan

Microban® Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage.

Includes drain pan overflow switch. Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.

Condenser Fan

Weather protected heavy duty condenser fan motor with coated steel swept wing fan blades for long life.

Internally mounted.

Totally enclosed motor.

Fan guard constructed of corrosion-resistant coated steel.

High Pressure Switch

Shuts off unit if abnormal operating conditions cause the discharge pressure to rise above setting.

Protects compressor from excessive condensing pressure. Automatic reset.

Loss of Charge Switch

Shuts off unit if suction pressure falls below setting.

Provides loss of charge and freeze-up protection.

SCROLL COMPRESSOR

Copeland Scroll Ultra Tech™ Two-Stage Compressor

Compressor features high efficiency with uniform suction flow, constant discharge flow, high volumetric efficiency and quiet operation.
Compressor consists of two involute spiral scrolls matched together to generate a series of crescent shaped gas pockets between them.
During compression, one scroll remains stationary while the other scroll orbits around it.
Gas is drawn into the outer pocket, the pocket is sealed as the scroll rotates.
As the spiral movement continues, gas pockets are pushed to the center of the scrolls. Volume between the pockets is simultaneously reduced.

When the pocket reaches the center, gas is now at high pressure and is forced out of a port located in the center of the fixed scrolls. During compression, several pockets are compressed simultaneously resulting in a smooth continuous compression cycle.
Continuous flank contact, maintained by centrifugal force, minimizes gas leakage and maximizes efficiency.
Scroll compressor is tolerant to the effects of slugging and contaminants. If this occurs, scrolls separate, allowing liquid or contaminants to be worked toward the center and discharged.

During the compression process, there are several pockets in the scroll that are compressing gas. Modulation is achieved by venting a portion of the gas in the first suction pocket back to the low side of the compressor thereby reducing the effective displacement of the compressor.

A 24-volt DC solenoid valve inside the compressor controls staging. When the 3-way solenoid is energized it moves the lift ring assembly to block the ports and the compressor operates at full-load or 100% capacity. When the solenoid is de-energized the lift ring assembly moves to unblock the compressor ports and the compressor operates at part-load or approximately 67% of its full-load capacity.

The “loading” and “unloading” of the two stage scroll is done “on the fly” without shutting off the single-speed compressor motor between stages.

Low gas pulses during compression reduces operational sound levels.

Compressor motor is internally protected from excessive current and temperature.

Compressor is installed in the unit on specially formulated, resilient rubber mounts for better sound dampening and vibration free operation.

Heavy Duty Compressor Blanket

Durable PVC outer cover with sound insulating inner polyester fiber

OPTIONAL ACCESSORIES

Compressor Crankcase Heater

Protects against refrigerant migration that can occur during low ambient operation.

Compressor Hard Start Kit

Single-phase units are equipped with a PSC compressor motor. This type of motor normally doesn’t need a potential relay and start capacitor.

In conditions such as low voltage, this kit may be required to increase the compressor starting torque.

Compressor Timed-Off Control

Prevents compressor short-cycling and allows time for suction and discharge pressure to equalize. Permits compressor start-up in an unloaded condition. Automatic reset with 5 minute delay between compressor shut-off and start-up.

SUPPLY AIR BLOWER

Direct Drive Blower

Each blower wheel statically and dynamically balanced.

Multi-speed operation is achieved by the use of an ECM (Electronically Commutated Motor) variable speed motor.

See Blower Performance tables.

Blower assembly easily removed for servicing.

ECM Variable Speed Blower Motor

Variable speed motor maintains specified air volume from 0 though 0.80 in. w.g. static range.

Motor is controlled by the blower control.

Change in blower speed is easily accomplished by simple jumper pin change on blower control.

Motor is resiliently mounted.

CONTROLS

Electronic Blower Control

Two stages - HEAT and COOL (with four different air volume selections for each) are made by simple jumper pins.

ADJUST jumper pin allows approximately 10% higher, normal or 10% lower motor speed selection within (COOL) speeds selected for for fine tuning air volume. See Blower Data tables.

NOTE - HEAT speeds are not affected by jumper change.

Cooling Airflow Ramp Up - At the beginning of a call for cooling, the blower will run at 82% of full airflow for 7.5 minutes. This improves the system's moisture removal and saves blower power during cooling start.

Reduced Airflow Operation - For situations where humidity control is an issue, the variable speed motor can be connected to operate at a 25% reduction in the normal airflow rate. The variable speed motor interface provides for connection of a thermostat with humidity control or a humidistat on the HUM terminal. When connected, the dehumidifier resistor on the interface must be cut. The control should be wired to open during high humidity, which will reduce blower airflow.

24 Volt Transformer

40VA transformer furnished and factory installed in control area.

OPTIONAL ACCESORIES

Comfort Sync® Equipment Interface Module

Allows Comfort Sync® Thermostats to be used with residential packaged units.

Contains all necessary relays and controls to operate the system and communicate with the Comfort Sync® Thermostat.

NOTE - The Comfort Sync® Equipment Interface Module is required for proper operation of Comfort Sync® Thermostats with residential packaged units.

Comfort Sync® Thermostat

The Comfort Sync® Thermostat recognizes and connects conventional heating/cooling products to automatically configure and control the system (based on user-specified settings) for the highest level of comfort, performance and efficiency.

Wi-Fi remote temperature monitoring and adjustment through a home wireless network for desktop PCs, laptops and apps for smartphones or tablets. Also displays service alerts and reminders.

A simple easy-to-use touchscreen allows complete system configuration. Scheduled maintenance alerts, system warnings and troubleshooting are also displayed on thermostat screen.

One-Touch Away Mode - A quick and easy way to set the cooling and heating setpoints while away.

Weather-On-Demand - Live up-to-date weather data and five-day forecasts.

Easy to read 7-inch color screen (measured diagonally).

See the Comfort Sync® Thermostat Product Specifications bulletin in the Controls section for more information.

CABINET

Conditioned areas insulated with foil faced insulation to minimize heat loss and reduce operating sound levels.

Powder paint for maximum durability.

Easy service access.

Steel louvered panels provides complete coil protection.

Airflow Choice

Units are shipped in horizontal configuration and can be field converted to downflow (vertical) airflow with optional Downflow Conversion Kit.

Gas Piping Inlets, Electrical Inlets and Service Valves

Gas piping and field wiring inlets are located in one central area of the cabinet. See dimension drawing.

Gauge ports located inside compressor service compartment of the cabinet.

INDOOR AIR QUALITY

PCO Accessory

The PCO Accessory uses photocatalytic oxidation (PCO) technology to significantly reduce levels of airborne volatile organic compounds, cooking odors, common household odors, airborne dust particles, mold spores and pollen.

PCO Accessory is mounted internally to the unit cabinet for superior indoor air quality.

Kit contains PCO cartridge, UVA lamp, UVA lampholder assembly, ballast box, wiring harness and all necessary hardware.

Internal Filter Rack Kits

Available for 1 in. thick filters. Kit contains filter rails for mounting filters internal to unit. Filters are not furnished and must be field provided.

NOTE - The Internal Filter Rack Kit cannot be used with the PCO Accessory.

NOTE - Maximum acceptable filter efficiency is MERV 11.

SPECIFICATIONS

GENERAL DATA	MODEL NO.	PRPAC1624	PRPAC1636	PRPAC1648	PRPAC1660
	NOMINAL TONNAGE	2	3	4	5
COOLING PERFORMANCE	Total cooling capacity - Btuh	23,800	35,400	47,500	57,000
	Total Unit Watts	1900	2950	3960	4750
	[1] SEER (Btuh/Watt)	16.0	16.0	16.0	16.0
	EER (Btuh/Watt)	12.5	12.0	12.0	12.0
	[2] Sound Rating Number (dB)	73	74	73	74
REFRIGERANT	Type	R-410A	R-410A	R-410A	R-410A
	Charge	5 lbs. 7 oz.	5 lbs. 12 oz.	6 lbs. 10 oz.	9 lbs. 1 oz.
CONDENSATE DRAIN SIZE (FPT) - IN.		3/4	3/4	3/4	3/4
OUTDOOR COIL	Net Face Area - sq. ft.	14.6	16.4	19.5	19.1
	Tube Dia. - in. and No. of Rows	5/16 – 1	5/16 – 1	5/16 – 1	5/16 – 2
	Fins per inch	26	26	26	22
OUTDOOR COIL FAN	Motor horsepower	1/6	1/6	1/4	1/4
	Dia. - in. and No. of blades	22 – 3	22 – 3	24 – 3	24 – 3
INDOOR COIL	Net Face Area - sq. ft.	4.4	4.4	6.8	6.8
	Tube Dia. - in. and No. of rows	3/8 – 3	3/8 – 3	3/8 – 3	3/8 – 3
	Fins per in.	15	15	15	15
INDOOR BLOWER	Blower wheel size dia. x width - in.	10 x 6	10 x 8	10 x 10	12 x 9
	Motor horsepower	1/2	1/2	3/4	1
NET WEIGHT OF BASIC UNIT - LBS.		348	351	444	482
SHIPPING WEIGHT OF BASIC UNIT (1 PKG.) - LBS.		411	414	517	555
ELECTRICAL CHARACTERISTICS (60 HZ)		208/230V-1ph-60Hz			

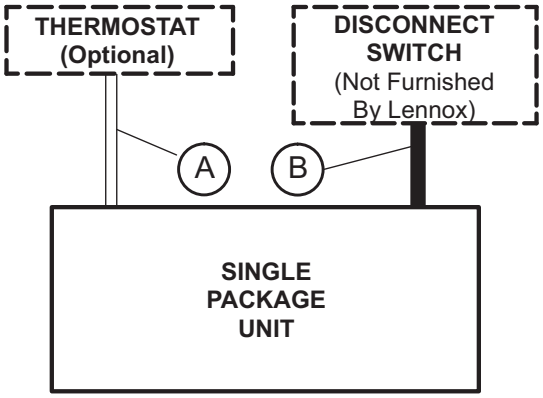
NOTE-Extremes of operating range are plus and minus 10% of line voltage.
1 AHRI Certified to AHRI Standard 210/240; 95°F outdoor air temperature, 80°F db/67°F wb entering evaporator air.
2 Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.
3 HACR type circuit breaker or fuse.
4 Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

OPTIONAL ACCESSORIES - ORDER SEPARATELY						
MODEL NO.			PRPAC1624	PRPAC1636	PRPAC1648	PRPAC1660
COMPRESSOR CRANKCASE HEATER		11X27	•	•	•	•
COMPRESSOR HARD START KIT		10J42	•	•		
		12J90			•	•
COMPRESSOR TIMED-OFF CONTROL		47J27	•	•	•	•
DOWNFLOW CONVERSION KIT		1.851401	•	•		
		1.851402			•	•
HORIZONTAL DISCHARGE RECT. TO 14" ROUNDS DUCT ADAPTER (QTY 25 SETS)		R104617-01	•	•		
		R104618-01			•	•
[1, 2] INTERNAL FILTER RACK KIT (FILTERS NOT FURNISHED)	(1) 20 x 20 + (1) 14 x 20	11U73	•	•		
	(2) 20 x 20	11U74			•	•
LIFTING BRACKETS		11U76	•	•	•	•
CLIP CURBS	8 in. Height	14W71	•	•		
		14W72			•	•
	14 in. Height	14V68	•	•		
		14V69			•	•
ADJUSTABLE PITCH ROOF CURB AVAILABLE 3RD PARTY ONLY. SEE PAGE 12			•	•		
					•	•
[2] HEALTHY CLIMATE® PCO ACCESSORY		Y7960	•	•	•	•
MAINTENANCE SUPPLIES - ORDER SEPARATELY						
HEALTHY CLIMATE® PCO ACCESSORY MAINTENANCE KIT (INCLUDES PUREAIR™ CARTRIDGE AND UVA LAMP)		Y7972	•	•	•	•
CONTROLS - ORDER SEPARATELY						
COMFORT SYNC® WI-FI THERMOSTAT		1.841197	•	•	•	•
EQUIPMENT INTERFACE MODULE (EIM) - REQUIRED WITH COMFORT SYNC THERMOSTAT		R104785-0	•	•	•	•
[3] OUTDOOR AIR TEMPERATURE SENSOR		X2658	•	•	•	•
[4] DISCHARGE AIR TEMPERATURE SENSOR		88K38	•	•	•	•

1 Filters are not furnished and must be field provided. Maximum acceptable filter efficiency is MERV 11.
2 Filter Rack Kit cannot be used with the PCO Accessory.
3 Remote Outdoor Temperature Sensor is used with residential packaged units. Allows the thermostat to display outdoor temperature.
4 Used with the Comfort Sync Wi-Fi® Thermostats for optional service diagnostics

OPTIONAL ACCESSORIES - ORDER SEPARATELY						
MODEL NO.			PRPAC1624	PRPAC1636	PRPAC1648	PRPAC1660
ELECTRIC HEAT SIZE - 208/240V-1PH	5 kW - PHK05BP	10W47	•	•	•	•
	7.5 kW - PHK07BP	10W48	•	•	•	•
	10 kW - PHK10BP	10W49	•	•	•	•
	15 kW - PHK15BP	10W50		•	•	•
	20 kW - PHK20BP	10W51			•	•
SINGLE POINT POWER KITS	FOR 5 KW ELECTRIC HEAT ASPWR813-10	13W88	•	•	•	•
	FOR 7.5 KW ELECTRIC HEAT ASPWR814-10	13W89	•	•	•	•
	FOR 10 KW ELECTRIC HEAT ASPWR815-10	13W90	•	•	•	•
	FOR 15-20 KW ELECTRIC HEAT ASPWR816-10	13W91		•	•	•

FIELD WIRING



A − Seven Wire Low Voltage (Electronic)

B − Two Wire Power (See Electrical Data Table)

− Field Wiring Not Furnished −

ELECTRIC HEAT CAPACITIES

INPUT VOLTAGE	5 KW			7.5 KW			10 KW			15 KW			20 KW		
	NO OF STEPS	KW INPUT	KBTUH OUTPUT	NO OF STEPS	KW INPUT	KBTUH OUTPUT	NO OF STEPS	KW INPUT	KBTUH OUTPUT	NO OF STEPS	KW INPUT	KBTUH OUTPUT	NO OF STEPS	KW INPUT	KBTUH OUTPUT
208	1	3.8	12.8	1	5.6	19.2	1	7.5	25.6	1	11.2	38.2	1	15	51.2
220	1	4.2	14.3	1	6.3	21.5	1	8.4	28.7	1	12.6	43	1	16.8	57.3
230	1	4.6	15.7	1	6.9	23.5	1	9.2	31.3	1	13.8	47	1	18.4	62.7
240	1	5	17.1	1	7.5	25.6	1	10	34.1	1	15	51.2	1	20	68.2

ELECTRICAL/ELECTRICAL HEAT DATA

MODEL NO.				PRPAC1624		PRPAC1636		PRPAC1648		PRPAC1660	
LINE VOLTAGE DATA - 60HZ - 1 PHASE				208/230V		208/230V		208/230V		208/230V	
COMPRESSOR	Rated Load Amps			11.7		16.1		21.2		27.1	
	Locked Rotor Amps			58.3		83.0		104.0		152.9	
OUTDOOR FAN MOTOR	Full Load Amps			1.2		1.4		2.3		2.4	
INDOOR BLOWER MOTOR	Full Load Amps			1.7		3.6		4.5		5.5	
[1] MAXIMUM OVERCURRENT PROTECTION		VOLTAGE		208V	240V	208V	240V	208V	240V	208V	240V
		UNIT ONLY	Circuit 1	25	25	35	35	50	50	70	70
		5 KW	Circuit 1	25	30	30	30	30	30	30	35
		7.5 KW	Circuit 1	40	45	40	45	40	45	40	45
		10 KW	Circuit 1	50	60	50	60	50	60	60	60
		[3] 15 KW	Circuit 1	- - -	- - -	50	60	50	60	60	60
			Circuit 2	- - -	- - -	25	30	25	30	25	30
		[3] 20 KW	Circuit 1	- - -	- - -	- - -	- - -	50	60	60	60
			Circuit 2	- - -	- - -	- - -	- - -	50	60	50	60
[1] MAXIMUM OVERCURRENT PROTECTION WITH OPTIONAL SINGLE POINT POWER SUPPLY		5 KW		25	30	35	35	45	45	60	60
		7.5 KW		40	45	40	45	45	45	60	60
		10 KW		50	60	50	60	50	60	60	60
		15 KW		- - -	- - -	80	90	80	90	80	90
		20 KW		- - -	- - -	- - -	- - -	100	110	100	110
[2] MINIMUM CIRCUIT AMPACITY		UNIT ONLY	Circuit 1	17	17	22.7	22.7	31.3	31.3	41.7	41.7
		5 KW	Circuit 1	24	27.4	25.5	28.9	26.5	29.9	27.6	31.0
		7.5 KW	Circuit 1	35.2	40.4	36.7	41.9	37.7	42.9	38.8	44.1
		10 KW	Circuit 1	46.5	53.5	48.0	55.0	49.0	56.0	50.1	57.1
		[3] 15 KW	Circuit 1	- - -	- - -	48.0	55.0	49.0	56.0	50.1	57.1
			Circuit 2	- - -	- - -	22.6	26.0	22.6	26	22.5	26.0
		[3] 20 KW	Circuit 1	- - -	- - -	- - -	- - -	49.0	56.0	50.1	57.1
			Circuit 2	- - -	- - -	- - -	- - -	45.1	52.1	45.1	52.1
[2] MINIMUM CIRCUIT AMPACITY WITH OPTIONAL SINGLE POINT POWER SUPPLY		5 KW		24.0	27.4	25.5	28.9	28.2	29.9	37.7	37.7
		7.5 KW		35.2	40.4	36.7	41.9	37.7	42.9	38.8	44.1
		10 KW		46.5	53.5	48.0	55.0	49.0	56.0	50.1	57.1
		15 KW		- - -	- - -	- - -	- - -	74.6	82.0	72.7	83.1
		20 KW		- - -	- - -	- - -	- - -	94.2	108.0	95.3	109.2

NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.
NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.
NOTE- Extremes of operating range are plus and minus 10% of line voltage.
1 HACR type breaker or fuse.
2 Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.
3 A separate compressor circuit is required.

COOLING RATINGS

2 TON - PRPAC1624 (1ST STAGE)																					
ENTERING WET BULB TEMPERATURE	TOTAL AIR VOL.	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		65°F					75°F					85°F					95°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	500	20.4	7.3	0.72	0.85	0.99	19.3	8.4	0.73	0.87	1.00	18.3	9.7	0.75	0.90	1.00	17.2	11.2	0.77	0.93	1.00
	560	20.9	7.3	0.74	0.89	1.00	19.8	8.4	0.76	0.91	1.00	18.8	9.7	0.77	0.94	1.00	17.6	11.2	0.80	0.98	1.00
	610	21.3	7.2	0.76	0.92	1.00	20.1	8.4	0.78	0.95	1.00	19.0	9.6	0.80	0.98	1.00	17.9	11.1	0.82	1.00	1.00
67°F	500	21.9	7.2	0.56	0.69	0.82	20.7	8.3	0.57	0.71	0.84	19.6	9.6	0.58	0.72	0.87	18.5	11.1	0.59	0.74	0.89
	560	22.3	7.1	0.58	0.72	0.86	21.1	8.2	0.59	0.74	0.88	19.9	9.5	0.60	0.76	0.90	18.8	11.0	0.61	0.78	0.94
	610	22.7	7.1	0.59	0.74	0.89	21.4	8.2	0.60	0.76	0.92	20.1	9.5	0.62	0.78	0.95	19.0	11.0	0.63	0.81	0.98
71°F	500	23.4	7.0	0.42	0.55	0.66	22.2	8.1	0.43	0.55	0.68	20.9	9.4	0.43	0.57	0.70	19.8	10.9	0.43	0.58	0.72
	560	23.9	7.0	0.43	0.56	0.69	22.6	8.1	0.43	0.57	0.71	21.3	9.4	0.44	0.59	0.73	20.1	10.8	0.44	0.60	0.75
	610	24.2	6.9	0.43	0.58	0.72	22.9	8.0	0.44	0.59	0.74	21.6	9.3	0.44	0.60	0.76	20.4	10.8	0.45	0.62	0.78

2 TON - PRPAC1624 (2ND STAGE)																					
ENTERING WET BULB TEMPERATURE	TOTAL AIR VOLUME	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		85°F					95°F					105°F					115°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	600	23.9	15.9	0.72	0.86	1.00	22.6	17.5	0.74	0.88	1.00	21.4	19.6	0.75	0.91	1.00	20.0	21.7	0.77	0.94	1.00
	800	25.2	16.0	0.80	0.97	1.00	23.9	17.6	0.81	1.00	1.00	22.7	19.6	0.83	1.00	1.00	21.5	21.8	0.85	1.00	1.00
	1000	26.6	16.1	0.86	1.00	1.00	25.3	17.7	0.88	1.00	1.00	24.0	19.6	0.90	1.00	1.00	22.7	21.9	0.93	1.00	1.00
67°F	600	25.5	16.0	0.57	0.70	0.83	24.2	17.6	0.58	0.71	0.85	22.8	19.5	0.59	0.73	0.88	21.4	21.9	0.60	0.75	0.90
	800	26.8	16.1	0.61	0.78	0.94	25.4	17.7	0.62	0.80	0.98	23.9	19.6	0.64	0.83	1.00	22.4	21.8	0.65	0.85	1.00
	1000	27.7	16.1	0.66	0.86	1.00	26.2	17.7	0.68	0.89	1.00	24.6	19.6	0.70	0.92	1.00	23.0	21.9	0.72	0.96	1.00
71°F	600	27.3	16.1	0.43	0.55	0.67	25.9	17.7	0.43	0.56	0.69	24.5	19.6	0.43	0.57	0.71	23.0	22.0	0.44	0.58	0.73
	800	28.6	16.2	0.44	0.60	0.76	27.0	17.8	0.45	0.61	0.78	25.5	19.6	0.45	0.63	0.81	23.9	21.8	0.46	0.65	0.84
	1000	29.4	16.2	0.46	0.65	0.84	27.8	17.8	0.47	0.67	0.87	26.1	19.7	0.48	0.69	0.91	24.4	21.9	0.49	0.72	1.00

3 TON - PRPAC1636 (1ST STAGE)																					
ENTERING WET BULB TEMPERATURE	TOTAL AIR VOLUME	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		65°F					75°F					85°F					95°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	760	29.0	10.8	0.74	0.88	1.00	27.5	12.3	0.75	0.90	1.00	26.0	14.2	0.77	0.93	1.00	24.4	16.3	0.79	0.96	1.00
	840	29.6	10.8	0.76	0.92	1.00	28.1	12.3	0.78	0.94	1.00	26.5	14.1	0.80	0.97	1.00	25.1	16.3	0.82	1.00	1.00
	920	30.1	10.7	0.78	0.95	1.00	28.6	12.2	0.80	0.98	1.00	26.9	14.1	0.83	1.00	1.00	25.6	16.2	0.84	1.00	1.00
67°F	760	31.1	10.7	0.58	0.71	0.84	29.5	12.2	0.58	0.73	0.87	27.8	14.0	0.59	0.75	0.90	26.2	16.2	0.61	0.77	0.93
	840	31.7	10.6	0.59	0.74	0.88	30.0	12.1	0.60	0.75	0.91	28.3	14.0	0.61	0.78	0.94	26.6	16.1	0.63	0.80	0.98
	920	32.1	10.6	0.60	0.76	0.92	30.4	12.1	0.62	0.78	0.95	28.7	14.0	0.63	0.81	0.99	28.9	16.0	0.60	0.78	0.94
71°F	760	33.4	10.5	0.43	0.56	0.68	31.7	12.0	0.43	0.57	0.70	29.9	13.9	0.44	0.58	0.72	28.2	16.0	0.44	0.59	0.74
	840	33.9	10.4	0.43	0.57	0.71	32.2	11.9	0.44	0.58	0.73	30.4	13.8	0.44	0.60	0.75	28.5	16.0	0.45	0.61	0.78
	920	34.4	10.4	0.44	0.59	0.74	32.6	11.9	0.44	0.60	0.76	30.8	13.8	0.45	0.62	0.78	27.2	16.1	0.48	0.67	0.86

3 TON - PRPAC1636 (2ND STAGE)																					
ENTERING WET BULB TEMPERATURE	TOTAL AIR VOLUME	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		85°F					95°F					105°F					115°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	1000	36.5	23.9	0.74	0.90	1.00	34.6	26.5	0.77	0.92	1.00	32.6	29.4	0.78	0.95	1.00	30.6	32.8	0.80	0.99	1.00
	1200	37.6	24.0	0.79	0.95	1.00	35.7	26.6	0.82	0.98	1.00	33.9	29.6	0.83	1.00	1.00	32.1	33.0	0.85	1.00	1.00
	1400	38.9	24.2	0.83	1.00	1.00	37.1	26.8	0.86	1.00	1.00	35.2	29.8	0.88	1.00	1.00	33.4	33.1	0.90	1.00	1.00
67°F	1000	38.9	24.2	0.58	0.73	0.87	36.9	26.8	0.59	0.74	0.89	34.8	29.7	0.60	0.76	0.92	32.7	33.1	0.62	0.79	0.96
	1200	40.0	24.3	0.61	0.78	0.95	37.9	26.9	0.63	0.80	0.98	36.0	29.8	0.63	0.82	0.98	33.4	33.1	0.66	0.86	1.00
	1400	40.6	24.4	0.65	0.83	1.00	38.6	27.0	0.66	0.86	1.00	36.3	29.9	0.68	0.90	1.00	34.1	33.2	0.70	0.93	1.00
71°F	1000	41.4	24.5	0.43	0.57	0.70	39.3	27.0	0.43	0.58	0.72	37.0	30.0	0.44	0.59	0.74	34.9	33.3	0.44	0.61	0.77
	1200	42.5	24.6	0.44	0.60	0.76	40.2	27.1	0.45	0.62	0.78	37.9	30.1	0.45	0.63	0.79	35.8	33.4	0.45	0.65	0.81
	1400	43.3	24.7	0.46	0.64	0.80	41.1	27.2	0.46	0.65	0.84	38.7	30.2	0.47	0.67	0.88	36.3	33.5	0.47	0.70	0.88

COOLING RATINGS

4 TON - PRPAC1648 (1ST STAGE)

ENTERING WET BULB TEMPERATURE	TOTAL AIR VOLUME	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		65°F					75°F					85°F					95°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	1010	39.3	13.8	0.73	0.87	1.00	37.0	16.1	0.75	0.90	1.00	34.7	18.7	0.77	0.93	1.00	32.3	21.6	0.79	0.97	1.00
	1120	40.1	13.7	0.75	0.91	1.00	37.7	16.0	0.77	0.94	1.00	35.3	18.7	0.80	0.97	1.00	33.2	21.5	0.82	1.00	1.00
	1230	40.7	13.6	0.78	0.95	1.00	38.4	16.0	0.80	0.98	1.00	36.0	18.6	0.82	1.00	1.00	34.0	21.4	0.84	1.00	1.00
67°F	1010	41.9	13.5	0.57	0.71	0.84	39.5	15.9	0.58	0.72	0.87	37.0	18.5	0.59	0.75	0.90	34.5	21.4	0.61	0.77	0.93
	1120	42.7	13.5	0.59	0.73	0.88	40.2	15.8	0.60	0.75	0.91	37.7	18.5	0.61	0.78	0.94	35.1	21.4	0.63	0.80	0.98
	1230	43.3	13.4	0.60	0.76	0.92	40.7	15.8	0.62	0.78	0.95	38.2	18.4	0.63	0.81	0.99	35.7	21.3	0.65	0.84	1.00
71°F	1010	44.9	13.3	0.43	0.55	0.68	42.3	15.6	0.43	0.57	0.70	39.7	18.3	0.44	0.58	0.72	37.2	21.2	0.44	0.59	0.74
	1120	45.6	13.2	0.43	0.57	0.71	43.0	15.6	0.44	0.58	0.73	40.3	18.2	0.44	0.60	0.75	37.7	21.1	0.45	0.62	0.78
	1230	46.3	13.1	0.44	0.59	0.74	43.6	15.5	0.44	0.60	0.76	40.9	18.2	0.45	0.62	0.79	38.2	21.1	0.46	0.64	0.82

4 TON - PRPAC1648 (2ND STAGE)

ENTERING WET BULB TEMPERATURE	TOTAL AIR VOLUME	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		85°F					95°F					105°F					115°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	1400	48.4	31.8	0.76	0.92	1.00	45.9	35.4	0.78	0.95	1.00	43.3	39.5	0.80	0.99	1.00	40.7	44.1	0.82	1.00	1.00
	1600	49.6	31.9	0.80	0.98	1.00	47.0	35.5	0.82	1.00	1.00	44.7	39.6	0.84	1.00	1.00	42.3	44.5	0.86	1.00	1.00
	1800	50.8	32.0	0.83	1.00	1.00	48.5	35.6	0.85	1.00	1.00	46.1	39.8	0.87	1.00	1.00	43.6	44.6	0.89	1.00	1.00
67°F	1400	51.6	32.1	0.59	0.74	0.89	48.8	35.7	0.60	0.76	0.92	46.0	39.8	0.62	0.79	0.95	43.2	44.6	0.63	0.81	0.99
	1600	52.6	32.2	0.62	0.79	0.96	49.8	35.8	0.63	0.81	0.99	46.8	39.9	0.65	0.84	1.00	44.0	44.7	0.66	0.87	1.00
	1800	53.4	32.3	0.64	0.83	0.99	50.5	35.8	0.66	0.86	1.00	47.6	40.0	0.67	0.89	1.00	44.6	44.8	0.70	0.92	1.00
71°F	1400	55.0	32.4	0.44	0.58	0.72	52.1	36.0	0.44	0.59	0.74	49.1	40.2	0.44	0.60	0.76	46.2	45.1	0.45	0.62	0.79
	1600	56.0	32.5	0.45	0.61	0.76	53.0	36.1	0.45	0.62	0.79	49.9	40.3	0.46	0.64	0.82	46.8	45.1	0.46	0.66	0.85
	1800	56.8	32.5	0.46	0.63	0.81	53.7	36.2	0.46	0.65	0.84	50.6	40.4	0.47	0.67	0.87	47.4	45.2	0.48	0.69	0.90

5 TON - PRPAC1660 (1ST STAGE)

ENTERING WET BULB TEMPERATURE	TOTAL AIR VOLUME	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		65°F					75°F					85°F					95°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	1130	46.2	17.4	0.72	0.85	0.99	43.5	20.1	0.73	0.88	1.00	40.8	23.2	0.75	0.91	1.00	38.0	26.6	0.77	0.94	1.00
	1260	47.3	17.3	0.74	0.89	1.00	44.5	20.1	0.76	0.92	1.00	41.6	23.2	0.78	0.95	1.00	38.9	26.6	0.80	0.99	1.00
	1390	48.1	17.2	0.76	0.93	1.00	45.2	20.0	0.79	0.96	1.00	42.4	23.1	0.81	0.99	1.00	39.8	26.5	0.83	1.00	1.00
67°F	1130	49.4	17.1	0.56	0.69	0.82	46.5	19.9	0.57	0.71	0.84	43.6	23.0	0.58	0.73	0.87	40.7	26.4	0.60	0.75	0.91
	1260	50.3	17.0	0.58	0.72	0.86	47.5	19.8	0.59	0.74	0.88	44.4	22.9	0.60	0.76	0.92	41.5	26.4	0.62	0.79	0.96
	1390	51.2	17.0	0.59	0.74	0.89	48.1	19.7	0.61	0.77	0.93	45.0	22.9	0.62	0.79	0.96	42.1	26.3	0.64	0.82	1.00
71°F	1130	52.8	16.8	0.43	0.55	0.66	49.8	19.6	0.43	0.56	0.68	46.8	22.7	0.43	0.57	0.70	43.7	26.2	0.44	0.58	0.73
	1260	53.8	16.7	0.43	0.56	0.69	50.7	19.5	0.43	0.57	0.71	47.5	22.7	0.44	0.59	0.73	44.5	26.1	0.44	0.60	0.76
	1390	54.6	16.6	0.44	0.58	0.72	51.4	19.4	0.44	0.59	0.74	48.2	22.6	0.45	0.61	0.77	45.0	26.0	0.45	0.63	0.80

5 TON - PRPAC1660 (2ND STAGE)

ENTERING WET BULB TEMPERATURE	TOTAL AIR VOLUME	OUTDOOR AIR TEMPERATURE ENTERING OUTDOOR COIL																			
		85°F					95°F					105°F					115°F				
		TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB			TOTAL COOL CAP.	COMP. MOTOR INPUT	SENSIBLE TO TOTAL RATIO (S/T) DRY BULB		
	CFM	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F	KBTUH	KW	75°F	80°F	85°F
63°F	1600	57.8	38.6	0.75	0.88	1.00	55.1	42.7	0.76	0.91	1.00	52.0	47.4	0.78	0.93	1.00	49.1	52.7	0.80	0.96	1.00
	1800	59.0	38.7	0.78	0.92	1.00	56.1	42.8	0.80	0.95	1.00	53.2	47.6	0.80	0.98	1.00	50.2	52.9	0.82	1.00	1.00
	2000	60.1	38.8	0.79	0.96	1.00	57.2	43.0	0.81	0.99	1.00	54.4	47.7	0.82	1.00	1.00	51.7	53.1	0.83	1.00	1.00
67°F	1600	61.7	39.1	0.58	0.73	0.85	58.5	43.1	0.59	0.75	0.88	55.4	47.8	0.60	0.77	0.91	52.2	53.2	0.62	0.79	0.93
	1800	62.8	39.2	0.60	0.76	0.90	59.6	43.3	0.61	0.78	0.93	56.4	48.0	0.63	0.81	0.95	53.0	53.3	0.64	0.81	0.98
	2000	63.6	39.3	0.62	0.78	0.94	60.5	43.4	0.64	0.80	0.97	57.0	48.1	0.65	0.82	1.00	53.7	53.4	0.67	0.85	1.00
71°F	1600	65.4	39.5	0.43	0.57	0.71	62.3	43.6	0.43	0.58	0.72	58.9	48.3	0.44	0.59	0.75	55.5	53.7	0.44	0.61	0.77
	1800	66.7	39.7	0.44	0.59	0.74	63.3	43.7	0.44	0.60	0.76	59.8	48.4	0.45	0.62	0.79	56.3	53.8	0.45	0.64	0.81
	2000	67.6	39.8	0.45	0.61	0.76	64.1	43.8	0.45	0.63	0.78	60.5	48.5	0.46	0.65	0.81	56.9	53.9	0.46	0.66	0.83

BLOWER DATA

PRPAC1624 BLOWER PERFORMANCE
0 THROUGH 0.80 IN. W.G. EXTERNAL STATIC PRESSURE RANGE

"ADJUST" JUMPER SETTING	BLOWER CONTROL JUMPER SPEED POSITIONS											
	"COOL" SPEED - CFM				"HEAT" SPEED - CFM				"CONTINUOUS FAN" SPEED - CFM			
	A	B	C	D	A	B	C	D	A	B	C	D
+	1100	880	660	440	1100	1000	900	815	550	440	330	220
NORM	1000	800	600	400	1100	1000	900	815	500	400	300	200
—	900	720	540	360	1100	1000	900	815	450	360	270	180

NOTE - All air data is measured external to unit without air filters.

PRPAC1636 BLOWER PERFORMANCE
0 THROUGH 0.80 IN. W.G. EXTERNAL STATIC PRESSURE RANGE

"ADJUST" JUMPER SETTING	BLOWER CONTROL JUMPER SPEED POSITIONS											
	"COOL" SPEED - CFM				"HEAT" SPEED - CFM				"CONTINUOUS FAN" SPEED - CFM			
	A	B	C	D	A	B	C	D	A	B	C	D
+	1540	1320	1100	880	1400	1200	1100	975	770	660	550	440
NORM	1400	1200	1000	800	1400	1200	1100	975	700	600	500	400
—	1260	1080	900	720	1400	1200	1100	975	630	540	450	360

NOTE - All air data is measured external to unit without air filters.

PRPAC1648 BLOWER PERFORMANCE
0 THROUGH 0.80 IN. W.G. EXTERNAL STATIC PRESSURE RANGE

"ADJUST" JUMPER SETTING	BLOWER CONTROL JUMPER SPEED POSITIONS											
	"COOL" SPEED - CFM				"HEAT" SPEED - CFM				"CONTINUOUS FAN" SPEED - CFM			
	A	B	C	D	A	B	C	D	A	B	C	D
+	1980	1760	1540	1320	1350	1200	1100	1000	990	880	770	660
NORM	1800	1600	1400	1200	1350	1200	1100	1000	900	800	700	600
—	1620	1440	1260	1080	1350	1200	1100	1000	810	720	630	540

NOTE - All air data is measured external to unit without air filters.

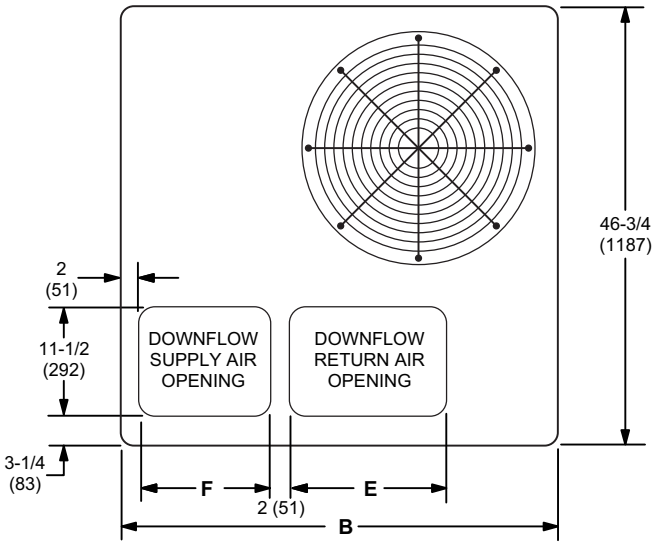
PRPAC1660 BLOWER PERFORMANCE
0 THROUGH 0.80 IN. W.G. EXTERNAL STATIC PRESSURE RANGE

"ADJUST" JUMPER SETTING	BLOWER CONTROL JUMPER SPEED POSITIONS											
	"COOL" SPEED - CFM				"HEAT" SPEED - CFM				"CONTINUOUS FAN" SPEED - CFM			
	A	B	C	D	A	B	C	D	A	B	C	D
+	2200	1980	1760	1540	1480	1380	1280	1180	1100	990	880	770
NORM	2000	1800	1600	1400	1480	1380	1280	1180	1000	900	800	700
—	1800	1620	1440	1260	1480	1380	1280	1180	900	810	720	630

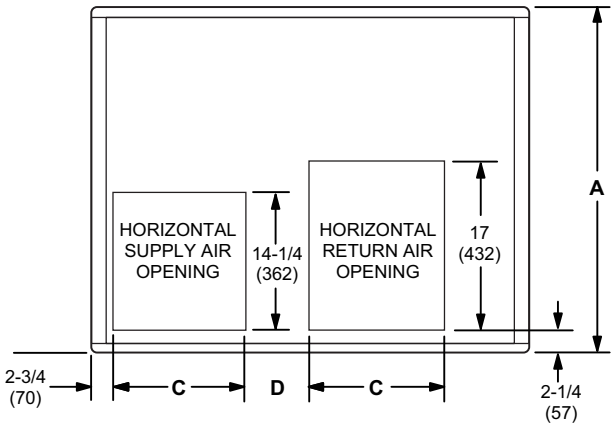
NOTE - All air data is measured external to unit without air filters.

INSTALLATION CLEARANCES		
	IN.	MM
Front (heat exchanger access)	24	610
Right Side (blower access)	24	610
Left Side (evaporator coil access)	24	610
Back	0	0
Top	48	1219

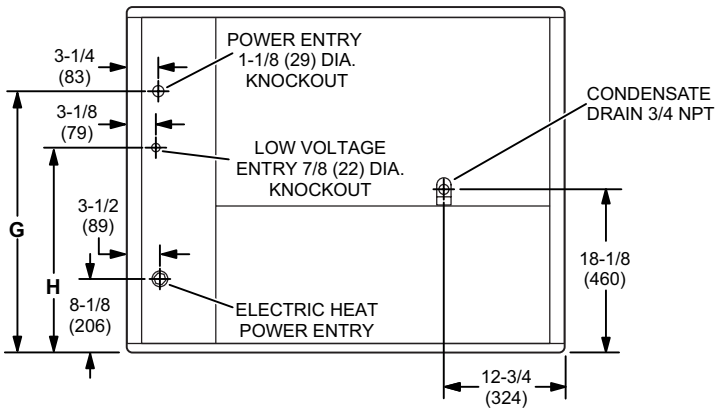
DIMENSIONS - UNIT - INCHES (MM)



TOP VIEW



BACK VIEW



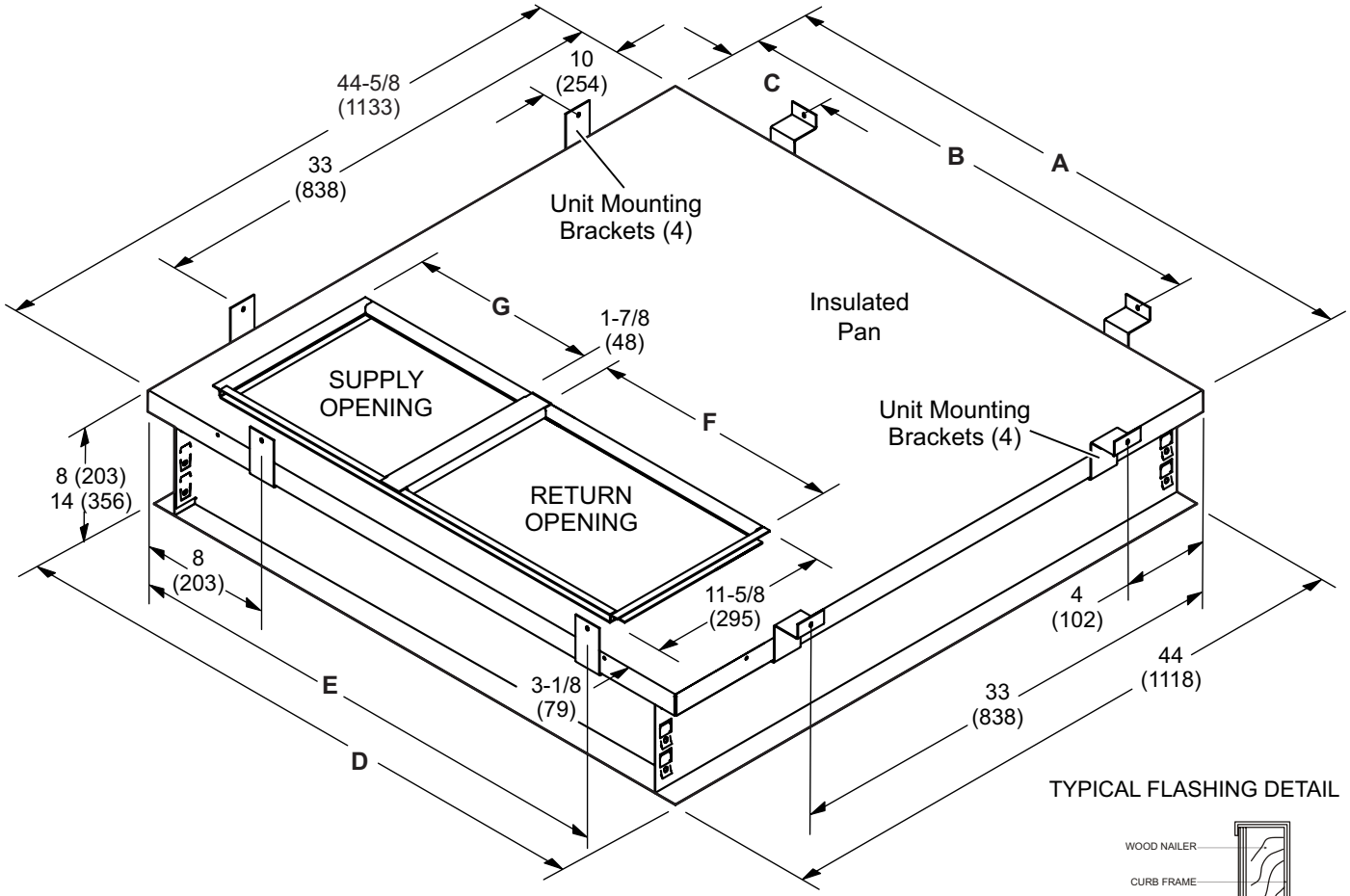
RIGHT SIDE VIEW

MODEL NO.	A		B		C		D		E	
	IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM
PRPAC1624, 36	36-7/8	937	46-3/4	1187	13-3/8	340	5-7/8	149	16-3/4	425
PRPAC1648, 60	40-7/8	1038	55-1/4	1403	18-1/8	467	4-5/8	117	19-3/4	502

MODEL NO.	F		G		H	
	IN.	MM	IN.	MM	IN.	MM
PRPAC1624, 36	14	356	28-1/8	714	22-1/8	562
PRPAC1648, 60	19-1/2	495	32-1/8	816	26-1/8	664

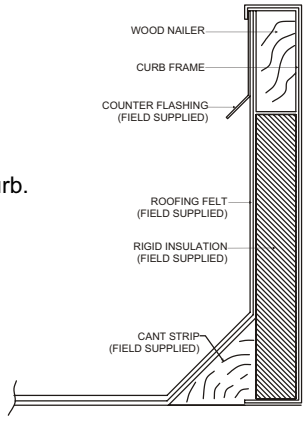
DIMENSIONS - ACCESSORIES - INCHES (MM)

CLIP CURB



NOTE - Roof deck may be ommitted within confines of curb.

TYPICAL FLASHING DETAIL

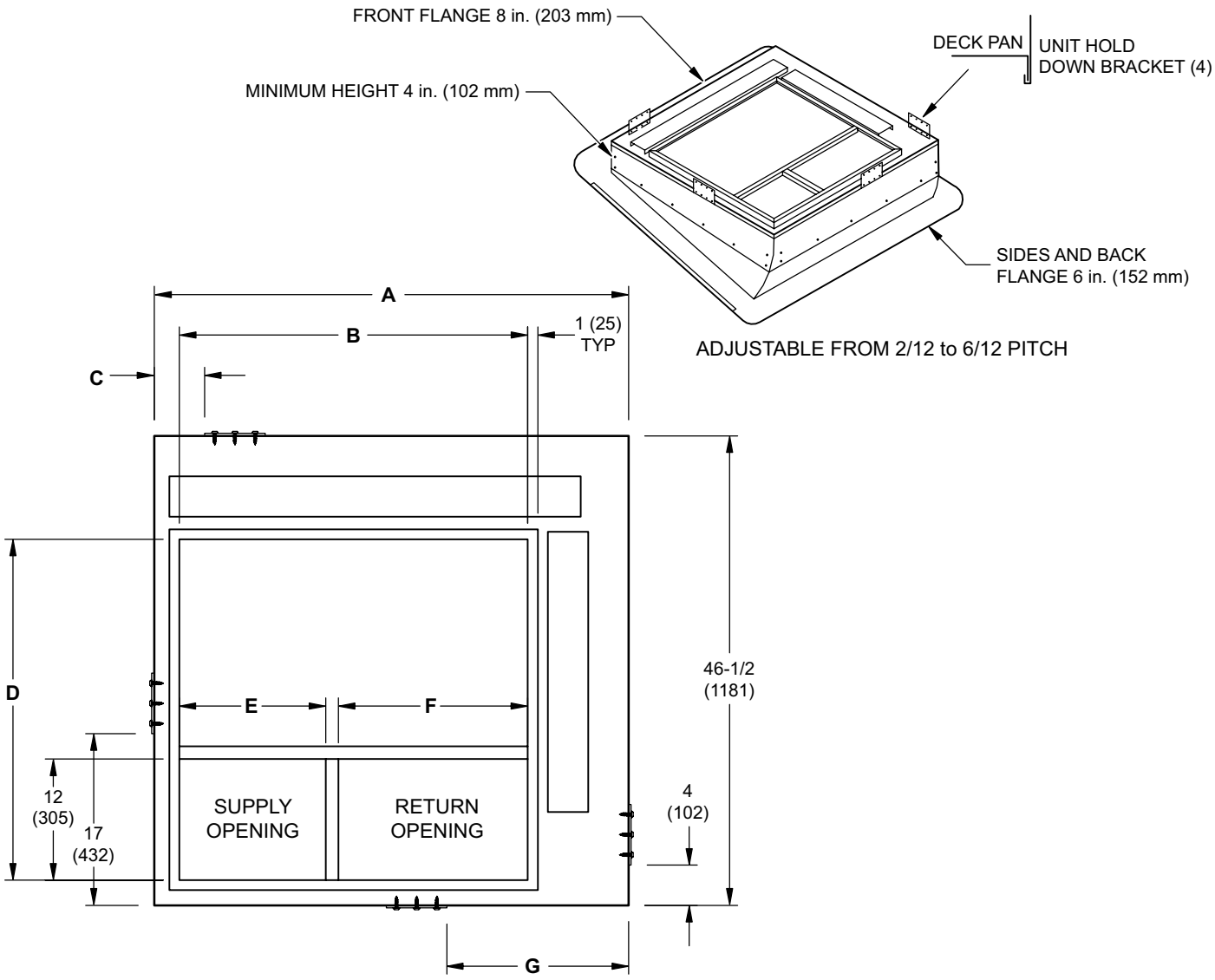


USAGE	A		B		C		D		E	
	IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM
24, 36	44-5/8	1133	43	1092	18	457	44	1118	37	940
48, 60	53-1/8	1349	51	1295	24	610	52-1/2	1334	41	1041

USAGE	F		G	
	IN.	MM	IN.	MM
24, 36	16.75	356	14.00	425
48, 60	19.75	495	19.50	502

DIMENSIONS - ACCESSORIES - INCHES (MM)

ADJUSTABLE PITCH ROOF CURB



USAGE	A		B		C		D	
	IN.	MM	IN.	MM	IN.	MM	IN.	MM
24, 30, 36	47	1194	34-1/2	876	5	127	33-3/4	857
42, 48, 60	55-1/4	1403	42-3/8	1076	10	254	33	838

MODEL NO.	E		F		G	
	IN.	MM	IN.	MM	IN.	MM
24, 30, 36	14-1/2	368	18-3/4	476	18	457
42, 48, 60	20	508	21-1/8	537	18-1/4	464

Must soruce locally

1-800-448-5872

FORM NO. PRP16GE-100 (11/2016)

Printed in the U.S.A.