PAYNE®

PH3A
13 SEER SPLIT-SYSTEM
HEAT PUMP
WITH R-410A REFRIGERANT
1-1/2 - 5 TONS (018-060)

Product Data

FEATURES AND BENEFITS

REFRIGERATION CIRCUIT

- Copeland compressors on all models
- Filter-Drier supplied with every unit for field installation
- Copper tube / aluminum fin coil

EASY TO INSTALL AND SERVICE

- Easy Access service valves on all models
- External high and low refrigerant service ports
- Only two screws to access control panel
- Factory charged with R-410A refrigerant

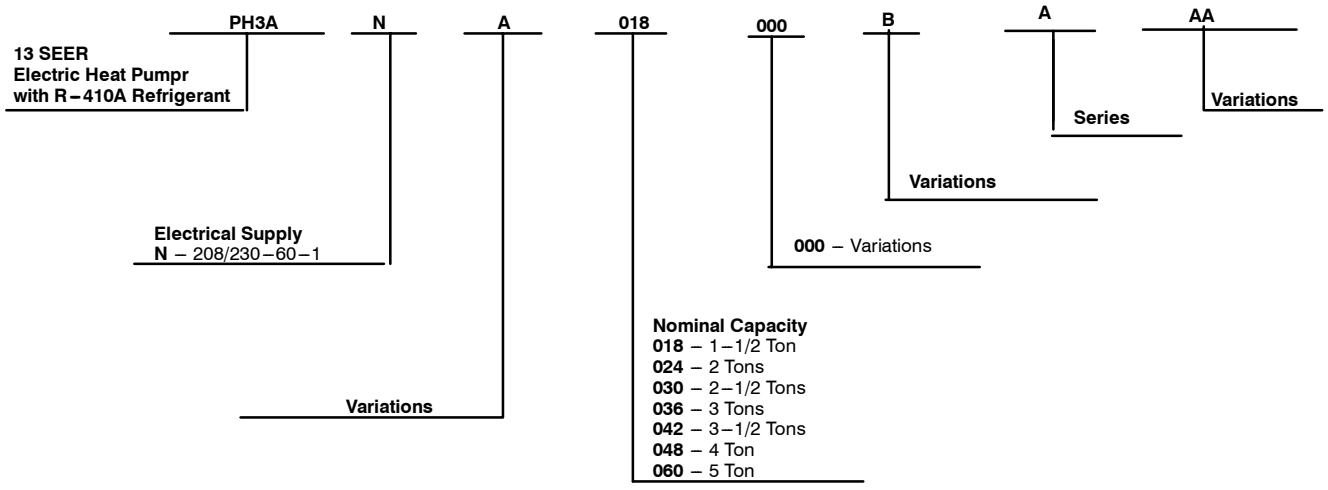
BUILT TO LAST

- Baked-on powder coat finish over galvanized steel
- Post-painted (black) coil fins
- Coated cabinet screws
- Coated inlet grille with 2" spacing standard, alternate models available with 3/8" grille spacing for extra protection

WARRANTY:

- 5 year limited compressor, coil, and parts warranties

PRODUCT NUMBER NOMENCLATURE



ARI PERFORMANCE CERTIFIED
ARI Standard 210/240
Unitary Heat Pumps

ISO 9001:2000
QMI REGISTERED

c UL US

PHYSICAL DATA

UNIT SIZE SERIES	18	24	30	36	42	48	60
Operating Weight lb. (kg.)	148 (67.1)	155 (70.3)	191 (86.6)	200 (90.7)	234 (106.1)	240 (108.9)	250 (113.4)
Shipping Weight lb. (kg.)	174 (78.9)	182 (85.7)	235 (106.6)	239 (108.4)	278 (126.1)	274 (124.3)	280 (127.0)
Compressor Type	Scroll						
REFRIGERANT	R–410A						
Control	TXV (Hard Shutoff)						
Charge lb. (kg)	6.4 (2.9)	5.9 (2.7)	7.6 (3.4)	7.65 (3.5)	8.4 (3.8)	11.8 (5.3)	12.4 (5.6)
COND FAN	Propeller Type, Direct Drive						
Air Discharge	Vertical						
Air Qty (CFM)	2614			3365	3810	4046	
Motor HP	1/10			1/4	1/5	1/4	
Motor RPM	1100				800		
COND COIL							
Face Area (Sq ft)	15.09		25.87		25.15	20.12	22.63
Fins per In.	20						
Rows	1					2	
Circuits	4	5	6	6	6	8	8
VALVE CONNECT. (In. ID)							
Vapor	5/8		3/4		7/8		
Liquid	3/8						
REFRIGERANT TUBES* (In. OD)							
Vapor (0–80 Ft Tube Length)	5/8		3/4		7/8		1–1/8
Liquid (0–80 Ft Tube Length)	3/8						

***** For tubing sets between 80 and 200 ft. horizontal or 20 ft. vertical differential, consult the Longline Guideline.

Note: See unit Installation Instruction for proper installation.

PH3A

VAPOR LINE SIZING AND COOLING CAPACITY LOSS R-410A 1-STAGE HEAT PUMP APPLICATIONS

LONG LINE APPLICATION: An application is considered "Long line" when the total equivalent tubing length exceeds 80 ft (24.4 m) or when there is more than 20 ft (6.1 m) vertical separation between indoor and outdoor units. These applications require additional accessories and system modifications for reliable system operation. The maximum allowable total equivalent length is 250 ft. (76.2 m). The maximum vertical separation is 200 ft (76.2 m) when outdoor unit is above indoor unit, and 50 ft (15.2 m) when the outdoor unit is below the indoor unit. Refer to Accessory Usage Guideline below for required accessories. See Long-Line Application Guideline for required piping and system modifications. Also, refer to the table below for the acceptable vapor tube diameters based on the total length to minimize the cooling capacity loss.

Unit Nominal Size (Btuh)	Acceptable Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%)Total Equivalent Line Length (ft.)										
		Standard Application			Long Line Application Requires Accessories							
		25	50	80	80+	100	125	150	175	200	225	250
18000 1–Stage R–410A HP	1/2	1	2	3	3	4	6	7	8	9	10	12
	5/8	0	0	1	1	1	1	2	2	3	3	3
24000 1–Stage R–410A HP	5/8	0	1	1	1	2	3	3	4	4	5	6
	3/4	0	0	0	0	0	1	1	1	1	1	2
30000 1–Stage R–410A HP	5/8	1	2	3	3	3	4	5	6	7	8	9
	3/4	0	0	1	1	1	1	2	2	2	3	3
	7/8	0	0	0	0	0	1	1	1	1	1	1
36000 1–Stage R–410A HP	5/8	1	2	4	4	5	6	7	9	10	11	13
	3/4	0	0	1	1	1	2	2	3	3	4	4
	7/8	0	0	0	0	0	1	1	1	1	2	2
42000 1–Stage R–410A HP	3/4	0	1	2	2	2	3	4	4	5	6	6
	7/8	0	0	1	1	1	1	2	2	2	3	3
48000 1–Stage R–410A HP	3/4	0	1	2	2	3	4	5	5	6	7	8
	7/8	0	0	1	1	1	2	2	2	3	3	4
60000 1–Stage R–410A HP	3/4	1	2	4	4	5	6	7	9	10	11	12
	7/8	0	1	2	2	2	3	4	4	5	5	6
	1 1/8	0	0	0	0	1	1	1	1	1	1	2

Standard Length = 80 ft. (24.4 m) or less total equivalent length

Applications in this area are long line. Accessories are required as shown recommended on Long Line Application Guidelines

Applications in this area may have height restrictions that limit allowable total equivalent length, when outdoor unit is below indoor unit See Long Line Application Guidelines

ACCESSORIES

ORDER NUMBER	DESCRIPTION	018	024	030	036	042	048	060
HC34GE239	BALL BEARING MOTOR	X						
HC34GE240	BALL BEARING MOTOR		X	X				
HC38GE228	BALL BEARING MOTOR					X		
HC40GE226	BALL BEARING MOTOR				X			
HC40GE228	BALL BEARING MOTOR						X	X
KAACH1201AAA	CRANKCASE HTR					X	S	S
KAACH1401AAA	CRANKCASE HTR	X	X	X	X			
KSACY0101AAA	CYCLE PROTECTOR	X	X	X	X	X	X	X
KAAFT0101AAA	FREEZE THERMOSTAT	X	X	X	X	X	X	X
KSAHS1701AAA	HARD START	X	X	X	X	X	X	X
KHAIR0101AAA	ISOLATION RELAY	X	X	X	X	X	X	X
KSALA0301410	LOW AMBIENT PSW	X	X	X	X	X	X	X
KSALA0601AAA	MOTORMASTER 230V	X	X	X	X	X	X	X
KHAOT0201SEC	OUTDOOR THERMOSTAT	X	X	X	X	X	X	X
KHAOT0301FST	OUTDOOR THERMOSTAT	X	X	X	X	X	X	X
KHALS0401LLS	SOLENOID VALVE	X	X	X	X	X	X	X
KSASH0601COP	SOUND BLKT	X	X	X	X	X	X	
KSASH2101COP	SOUND BLKT							X
KAACS0201PTC	START ASSIST PTC	X	X	X	X	X	X	X
KSASF0101AAA	SUPPORT FEET	X	X	X	X	X	X	X
KAATD0101TDR	TIME DELAY RELAY	X	X	X	X	X	X	X
KSATX0201PUR	TXV PURON HSO	X	X	X				
KSATX0301PUR	TXV PURON HSO				X	X		
KSATX0401PUR	TXV PURON HSO						X	
KSATX0501PUR	TXV PURON HSO							X

x = Accessory S = Standard

PH3A

ACCESSORY USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOWMBIENT COOLING APPLICATIONS (Below 55°F / 22.8°C)	REQUIRED FOR LONG LINE APPLICATIONS* (Over 80 Ft./24.4 m)	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles/3.2 km)
Crankcase Heater	Yes	Yes	No
Evaporator Freeze Thermostat	Yes	No	No
Accumulator	Standard	Standard	Standard
Compressor Start Assist Capacitor and Relay	Yes	Yes	No
Motor Master® Control or Low−ambient Pressure Switch	Yes	No	No
Support Feet	Recommended	No	Recommended
Liquid Line Solenoid Valve	No	See Long−Line Application Guideline	No
Ball Bearing Fan Motor	Yes†	No	No

***** For tubing line sets between 80 and 200 ft. and/or 20 ft. vertical differential, refer to Residential Split−System Longline Application Guideline.

† Required for Low−Ambient Controller (full modulation feature) and MotorMaster® Control only.

Accessory Description and Usage (Listed Alphabetically)

1. Compressor Start Assist - Capacitor and Relay

Start capacitor and relay gives a ”hard” boost to compressor motor at each start up.

Usage Guideline:

Required for reciprocating compressors in the following applications:

Long line

Low ambient cooling

Hard shut off expansion valve on indoor coil

Liquid line solenoid on indoor coil

Required for single-phase scroll compressors in the following applications:

Long line

Low ambient cooling

Suggested for all compressors in areas with a history of low voltage problems.

2. Compressor Start Assist — PTC Type

Solid state electrical device which gives a ”soft” boost to the compressor at each start-up.

Usage Guideline:

Suggested in installations with marginal power supply.

3. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

Usage Guideline:

Required in low ambient cooling applications.

Required in long line applications.

Suggested in all commercial applications.

4. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low ambient kit has been added.

5. Isolation Relay

An SPDT relay which switches the low-ambient controller out of the outdoor fan motor circuit when the heat pump switches to heating mode.

Usage Guideline:

Required in all heat pumps where low ambient kit has been added.

6. Liquid-Line Solenoid Valve (LLS)

An electrically operated shutoff valve which stops and starts refrigerant liquid flow in response to compressor operation. It is to be installed at the outdoor unit to control refrigerant off cycle migration in the heating mode.

Usage Guideline:

An LLS is required in all long line heat pump applications to control refrigerant off cycle migration in the heating mode. See Long Line Guideline.

7. Low-Ambient Pressure Switch Kit

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits. The control will maintain working head pressure at low-ambient temperatures down to 0°F when properly installed.

Usage Guideline:

A Low-Ambient Pressure Switch or MotorMaster® Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

8. MotorMaster® Low-Ambient Controller

A fan-speed control device activated by a temperature sensor, designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at 100°F ±10°F (37.8°C ± -12°C).

Usage Guideline:

A MotorMaster® Low Ambient Controller or Low-Ambient Pressure Switch must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

9. Outdoor Air Temperature Sensor

Designed for use with Bryant Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also is required to enable special thermostat features such as auxiliary heat lock out.

Usage Guideline:

Suggested for all Bryant thermostats listed in this publication.

10. Outdoor Thermostat

An SPDT temperature-actuated switch which turns on supplemental electric heaters when outdoor air temperature drops below a user-selected set point.

Usage Guideline:

Electric supplemental heat applications in non-variable speed indoor units when electric heat staging is desired.

11. Secondary Outdoor Thermostat

An SPDT temperature-actuated switch which turns on third-stage of supplemental electric heaters when outdoor air temperature drops below the second-stage set point.

Usage Guideline:

Outdoor thermostat applications where electric heater is capable of 3-stage operation.

Accessory Description and Usage (Listed Alphabetically) - CONTINUED

12. Support Feet

Four stick-on plastic feet that raise the unit 4 in. above the mounting pad. This allows sand, dirt, and other debris to be flushed from the unit base, minimizing corrosion.

Usage Guideline:

Suggested in the following applications:

Coastal installations.

Windy areas or where debris is normally circulating.

Rooftop installations.

For improved sound ratings.

13. Thermostatic Expansion Valve (TXV)

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

Kit includes valve, adapter tubes, and external equalizer tube. Hard shut off types are available.

NOTE: When using a hard shut off TXV with single phase reciprocating compressors, a Compressor Start Assist Capacitor and Relay is required.

Usage Guideline:

Required to achieve ARI ratings in certain equipment combinations. Refer to combination ratings.

Hard shut off TXV or LLS required in air conditioner long line applications.

Required for use on all zoning systems.

14. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

Note: Most indoor unit controls include this feature. For those that do not, use the guideline below.

Usage Guideline:

Accessory required to meet ARI rating, where indoor not equipped.

15. Winter Start Control

This control is designed to alleviate nuisance opening of the low-pressure switch by bypassing it for the first 3 minutes of operation.

ELECTRICAL DATA

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MIN WIRE SIZE†	MIN WIRE SIZE†	MAX LENGTH (ft.)‡	MAX LENGTH (ft.)‡	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		60° C	75° C	60° C	75° C	
018	208–230/1	253	197	48	9.0	0.75	11.9	14	14	66	62	20
024				58	12.8	0.75	16.8	14	14	47	45	25
030				77	16.5	0.75	21.4	12	12	58	56	30
036				79	16.7	1.4	22.2	12	12	56	54	35
042				109	19.9	1.2	26.0	10	10	77	73	40
048				117	27.3	1.2	35.4	8	8	88	84	50
060				134	26.3	1.2	34.1	8	8	91	87	50

* Permissible limits of the voltage range at which the unit will operate satisfactorily

† If wire is applied at ambient greater than 30°C, consult table 310–16 of the NEC (ANSI/NFPA 70). The ampacity of non–metallic–sheathed cable (NM), trade name ROMEX, shall be that of 60°C conditions, per the NEC (ANSI/NFPA 70) Article 336–26. If other than uncoated (no–plated), 60 or 75°C insulation, copper wire (solid wire for 10 AWG or smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (ANSI/NFPA 70).

‡ Length shown is as measured 1 way along wire path between unit and service panel for voltage drop not to exceed 2%.

** Time–Delay fuse.

FLA – Full Load Amps

LRA – Locked Rotor Amps

MCA – Minimum Circuit Amps

RLA – Rated Load Amps

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

PH3A

A-WEIGHTED SOUND POWER (dBA)

UNIT SIZE	STANDARD RATING (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dB, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18	76	52.0	63.5	68.0	70.5	66.5	62.0	57.5
24	75	54.5	64.0	69.0	69.5	67.5	64.0	58.0
30	74	52.0	62.5	66.5	68.5	65.0	63.5	59.0
36	76	60.0	64.0	69.5	70.0	68.5	65.5	60.5
42	77	55.5	60.0	63.5	71.5	65.0	62.5	59.0
48	78	58.0	65.5	68.5	72.0	66.5	60.5	53.0
60	76	55.0	63.0	67.5	71.5	68.0	64.0	60.5

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE–SERIES	REQUIRED SUBCOOLING °F (°C)
018	10 (5.6)
024	12 (6.7)
030	11 (6.1)
036	10 (5.6)
042	11 (6.1)
048	11 (6.1)
060	12 (6.7)

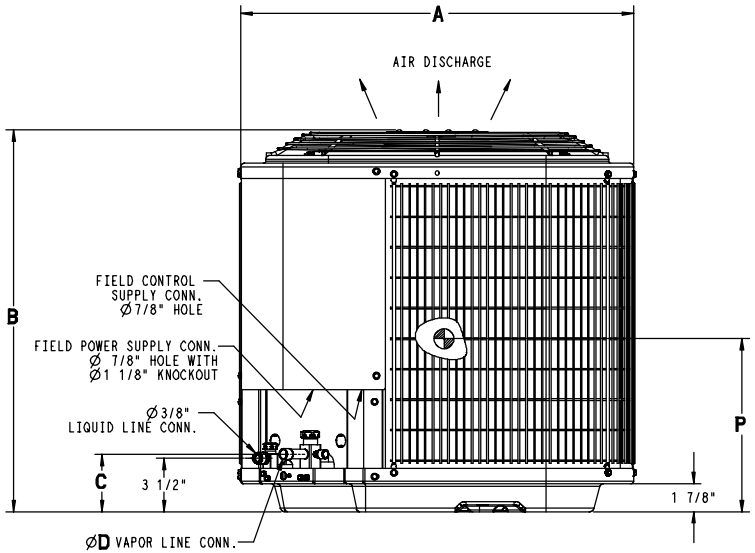
DIMENSIONS

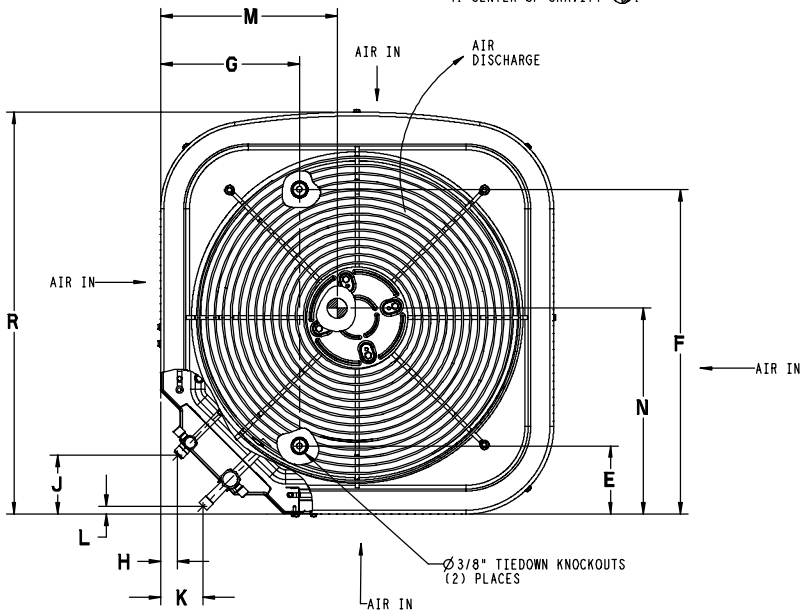
UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	OPERATING WEIGHT	SHIPPING WEIGHT	SHIPPING DIMENSIONS (L x W x H)
		208-230-1-60	230-1-60	208/230-3-60	460-3-60																		
PH3A018	A	X	O	O	O	25 3/4"	35 1/4"	3 3/4"	5/8"	4 7/16"	21 1/4"	9 1/8"	1 1/8"	3 13/16"	2 13/16"	1/2"	13 1/2"	14 1/2"	14"	26 5/16"	148#	174#	26 7/8" X 30 1/16" X 39 3/8"
PH3A024	A	X	O	O	O	31 3/16"	28 15/16"	3 3/4"	5/8"	6 9/16"	24 11/16"	9 1/8"	1 1/8"	3 13/16"	2 13/16"	1/2"	15 5/8"	16 3/4"	14 1/2"	32 5/16"	155#	182#	32 3/8" X 35 1/2" X 32 9/16"
PH3A030	A	X	O	O	O	31 3/16"	45 15/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	1 1/8"	3 13/16"	2 13/16"	1/2"	20 1/4"	17 3/8"	18 3/4"	32 5/16"	191#	223#	32 3/8" X 35 1/2" X 49 9/16"
PH3A036	A	X	O	O	O	31 3/16"	45 15/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	1 1/8"	3 13/16"	2 13/16"	1/2"	17"	14 3/4"	20 3/8"	32 5/16"	200#	232#	32 3/8" X 35 1/2" X 49 9/16"
PH3A042	A	X	O	O	O	35"	39 1/8"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	1 1/8"	3 13/16"	2 15/16"	5/8"	17 1/4"	19 1/8"	15 3/4"	36 9/16"	234#	266#	36 1/8" X 39 5/16" X 42 3/4"
PH3A048	A	X	O	O	O	35"	28 15/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	1 1/8"	3 13/16"	2 15/16"	5/8"	17"	16"	12"	36 9/16"	240#	273#	36 1/8" X 39 5/16" X 32 9/16"
PH3A060	A	X	O	O	O	35"	28 15/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	1 1/8"	3 13/16"	2 15/16"	5/8"	17"	16"	12"	36 9/16"	250#	282#	36 1/8" X 39 5/16" X 32 9/16"

X = YES
O = NO

NOTES:

1. ALLOW 30" CLEARANCE TO SERVICE SIDE OF UNIT, 48" ABOVE UNIT, 6" ON ONE SIDE, 12" ON REMAINING SIDE, AND 24" BETWEEN UNITS FOR PROPER AIRFLOW.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 55°F, MAX. 125°F.
3. SERIES DESIGNATION IS THE 10TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY ⊕.





UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18	26" X 26 1/2"
24,30,36	31 1/2" X 32 1/2"
42,48,60	35" X 36 1/2"

RATINGS AND PERFORMANCE

Unit Size	Indoor Model	Cooling Capacity	ARI Standard Ratings								
			Cooling				Heating				
			Factory Enhance	Standard Rating	SEER TDR	EER	High Temp		Low Temp		HSPF
							E Capacity	E COP	H Capacity	H COP	
018	*PF4MNA018	17,100	TDR&TXV	13.00		10.50	18,000	3.38	10,700	2.20	7.7
	FF1ENP018	17,100	TDR&TXV	13.00		10.50	18,000	3.40	10,700	2.22	7.7
	FF1ENP024	17,200	TDR&TXV	13.20		10.80	17,600	3.40	10,700	2.24	7.7
	PF4MNA019	17,400	TDR&TXV	14.50		11.70	17,700	3.60	10,300	2.34	8.0
	PF4MNA025	17,600	TDR&TXV	14.50		12.00	17,300	3.62	10,300	2.38	8.2
	PF4MNA024	17,100	TDR&TXV	13.00		10.50	18,000	3.40	10,700	2.22	7.7
	CAP**1814A**	17,100	TXV		13.00	10.50	18,000	3.34	10,600	2.20	7.7
	CAP**2414A**	17,300	TXV		13.20	10.80	18,000	3.48	10,700	2.26	7.8
	CAP**2417A**	17,300	TXV		13.20	10.80	18,000	3.48	10,700	2.26	7.8
	CNPF*2418A**	17,300	TXV		13.20	10.80	18,000	3.54	10,800	2.28	7.9
	CNPH*2417A**	17,300	TXV		13.20	10.80	18,000	3.54	10,800	2.28	7.9
	CNPV*1814A**	17,200	TXV		13.00	10.50	18,000	3.48	10,700	2.26	7.8
	CNPV*2414A**	17,300	TXV		13.20	10.80	18,000	3.54	10,800	2.26	7.8
	CNPV*2417A**	17,300	TXV		13.20	10.80	18,000	3.54	10,800	2.28	7.9
	CSPH*2412A**	17,500	TXV		13.20	10.80	18,000	3.54	10,800	2.28	7.9
024	*PF4MNA024	22,600	TDR&TXV	13.00		10.50	24,000	3.54	15,000	2.48	8.2
	FF1ENP024	22,800	TDR&TXV	13.00		10.70	24,000	3.56	15,200	2.46	8.2
	FF1ENP030	22,800	TDR&TXV	13.00		10.40	24,200	3.56	15,100	2.48	8.0
	PF4MNA025	23,000	TDR&TXV	14.00		11.40	23,800	3.72	14,600	2.60	8.3
	PF4MNA031	23,400	TDR&TXV	14.00		11.70	23,600	3.84	14,600	2.66	8.5
	PF4MNA030	23,000	TDR&TXV	13.20		10.60	24,000	3.64	15,100	2.52	8.4
	CAP**2414A**	22,800	TXV		13.00	10.50	24,400	3.60	15,100	2.50	8.3
	CAP**2417A**	22,800	TXV		13.00	10.50	24,400	3.60	15,100	2.50	8.3
	CAP**3014A**	23,000	TXV		13.00	10.60	23,400	3.56	15,200	2.52	8.3
	CAP**3017A**	23,000	TXV		13.00	10.60	23,400	3.56	15,200	2.52	8.3
	CNPF*2418A**	22,800	TXV		13.00	10.50	24,400	3.68	15,200	2.52	8.5
	CNPH*2417A**	22,800	TXV		13.00	10.50	24,400	3.68	15,200	2.52	8.5
	CNPH*3017A**	23,000	TXV		13.00	10.60	23,400	3.56	15,200	2.52	8.3
	CNPV*2414A**	22,800	TXV		13.00	10.50	24,400	3.68	15,200	2.52	8.5
	CNPV*2417A**	22,800	TXV		13.00	10.50	24,400	3.68	15,200	2.52	8.5
	CNPV*3014A**	23,000	TXV		13.00	10.60	23,400	3.56	15,200	2.52	8.3
030	*PF4MNA030	30,000	TDR&TXV	13.00		10.8	30,000	3.46	18,700	2.38	8.0
	FF1ENP030	29,800	TDR&TXV	13.00		10.80	30,000	3.40	18,600	2.36	7.7
	FF1ENP036	30,000	TDR&TXV	13.00		10.80	30,000	3.48	18,700	2.38	8.0
	PF4MNA037	30,000	TDR&TXV	13.50		11.20	30,000	3.60	18,400	2.46	8.2
	PF4MNA031	30,000	TDR&TXV	14.00		11.50	30,000	3.60	18,300	2.46	8.2
	PF4MNA036	30,000	TDR&TXV	13.00		10.70	30,000	3.46	18,800	2.38	8.0
	CAP**3014A**	30,000	TXV		13.00	10.80	30,000	3.46	18,800	2.38	8.0
	CAP**3017A**	30,000	TXV		13.00	10.80	30,000	3.46	18,800	2.38	8.0
	CAP**3614A**	30,000	TXV		13.00	10.80	30,000	3.50	18,800	2.40	8.0
	CAP**3617A**	30,000	TXV		13.00	10.80	30,000	3.50	18,800	2.40	8.0
	CAP**3621A**	30,000	TXV		13.00	10.80	30,000	3.50	18,800	2.40	8.0
	CNPF*3618A**	30,000	TXV		13.00	10.80	30,000	3.48	18,800	2.38	8.0
	CNPH*3017A**	30,000	TXV		13.00	10.80	30,000	3.48	18,800	2.38	8.0
	CNPH*3617A**	30,000	TXV		13.00	10.80	30,000	3.48	18,800	2.38	8.0
	CNPV*3014A**	30,000	TXV		13.00	10.80	30,000	3.48	18,800	2.38	8.0
	CNPV*3017A**	30,000	TXV		13.00	10.80	30,000	3.48	18,800	2.38	8.0
	CNPV*3617A**	30,000	TXV		13.00	10.80	30,000	3.48	18,800	2.38	8.0
	CNPV*3621A**	30,000	TXV		13.00	10.80	30,000	3.48	18,800	2.38	8.0
	CSPH*3012A**	30,000	TXV		13.00	10.80	30,000	3.50	18,800	2.40	8.0
	CSPH*3612A**	30,000	TXV		13.00	10.80	30,000	3.64	18,900	2.44	8.2
036	*PF4MNA042	34,000	TDR&TXV	13.00		10.60	35,800	3.56	22,200	2.42	8.1
	FF1ENP036	33,600	TDR&TXV	13.00		10.70	35,400	3.44	21,800	2.40	7.9
	PF4MNA037	34,000	TDR&TXV	13.50		11.20	35,200	3.62	21,400	2.50	8.3
	PF4MNA043	34,800	TDR&TXV	14.00		11.50	35,200	3.76	21,600	2.54	8.5
	PF4MNA036	33,000	TDR&TXV	13.00		10.50	35,200	3.36	21,600	2.34	7.7
	CAP**3614A**	32,400	TXV		13.00	10.50	35,200	3.40	21,800	2.38	7.8
	CAP**3617A**	33,400	TXV		13.00	10.50	35,600	3.46	22,000	2.40	7.9
	CAP**3621A**	33,400	TXV		13.00	10.50	35,600	3.46	22,000	2.40	7.9
	CAP**4221A**	33,800	TXV		13.00	10.60	35,800	3.52	22,000	2.42	8.0
	CAP**4224A**	33,800	TXV		13.00	10.60	35,800	3.52	22,000	2.42	8.0
	CNPF*3618A**	33,400	TXV		13.00	10.50	35,600	3.44	22,000	2.38	7.9
	CNPH*3617A**	33,400	TXV		13.00	10.50	35,600	3.44	22,000	2.38	7.9
	CNPH*4221A**	33,800	TXV		13.00	10.60	35,800	3.54	22,000	2.42	8.1
	CNPV*3617A**	33,400	TXV		13.00	10.50	35,600	3.44	22,000	2.38	7.9
	CNPV*3621A**	33,400	TXV		13.00	10.50	35,600	3.44	22,000	2.38	7.9
	CNPV*4221A**	33,800	TXV		13.00	10.60	35,800	3.54	22,000	2.42	8.1
	CSPH*3612A**	33,400	TXV		13.00	10.70	35,600	3.62	22,200	2.44	8.2
	CSPH*4212A**	33,800	TXV		13.20	10.80	35,800	3.66	22,200	2.46	8.3

See notes on pg. 9

RATINGS AND PERFORMANCE (CONT.)

Unit Size	Indoor Model	Cooling Capacity	ARI Standard Ratings								
			Cooling				Heating				
			Factory Enhance	Standard Rating	SEER TDR	EER	High Temp		Low Temp		HSPF
							E Capacity	E COP	H Capacity	H COP	
042	*PF4MNA042	40,500	TDR&TXV	13.00		10.40	42,000	3.54	26,400	2.46	8.1
	PF4MNA043	41,500	TDR&TXV	14.00		11.20	42,000	3.70	25,800	2.56	8.4
	PF4MNA049	42,500	TDR&TXV	14.00		11.70	40,000	3.76	25,800	2.66	8.7
	PF4MNA048	41,500	TDR&TXV	13.20		10.60	41,000	3.56	26,600	2.50	8.2
	CAP**4221A**	40,000	TXV		13.00	10.40	42,500	3.50	26,200	2.46	8.0
	CAP**4224A**	40,000	TXV		13.00	10.40	42,500	3.50	26,200	2.46	8.0
	CAP**4817A**	40,500	TXV		13.00	10.70	41,000	3.64	26,400	2.54	8.4
	CAP**4821A**	41,000	TXV		13.00	10.60	42,000	3.62	26,400	2.52	8.3
	CAP**4824A**	41,000	TXV		13.00	10.60	42,000	3.62	26,400	2.52	8.3
	CNPF*4818A**	40,500	TXV		13.00	10.50	42,000	3.58	26,400	2.48	8.2
	CNPH*4221A**	40,500	TXV		13.00	10.40	42,500	3.50	26,200	2.46	8.0
	CNPH*4821A**	41,000	TXV		13.00	10.60	42,000	3.64	26,400	2.52	8.3
	CNPV*4221A**	40,000	TXV		13.00	10.40	42,500	3.50	26,200	2.46	8.0
	CNPV*4821A**	41,000	TXV		13.00	10.60	42,000	3.64	26,400	2.52	8.3
	CNPV*4824A**	41,000	TXV		13.00	10.60	42,000	3.64	26,400	2.52	8.3
	CSPH*4212A**	40,000	TXV		13.00	10.70	42,500	3.66	26,400	2.52	8.3
	CSPH*4812A**	41,000	TXV		13.00	10.70	42,000	3.68	26,400	2.52	8.4
048	*PF4MNA048	47,500	TDR&TXV	13.00		11.0	48,000	3.58	30,200	2.54	8.0
	CAP**4817A**	46,500	TXV		13.00	11.00	48,000	3.62	29,800	2.56	8.0
	CAP**4821A**	47,000	TXV		13.00	11.00	48,000	3.64	30,000	2.56	8.0
	CAP**4824A**	47,000	TXV		13.00	11.00	47,500	3.64	30,000	2.56	8.0
	CAP**6021A**	48,000	TXV		13.50	11.50	45,500	3.54	30,200	2.60	8.0
	CAP**6024A**	48,000	TXV		13.50	11.50	45,500	3.54	30,200	2.60	8.0
	CNPF*4818A**	46,000	TXV		13.00	11.00	48,000	3.46	29,600	2.52	7.7
	CNPH*4821A**	47,000	TXV		13.00	11.00	48,000	3.64	30,000	2.56	8.0
	CNPH*6024A**	48,000	TXV		13.50	11.50	48,000	3.64	30,000	2.58	8.0
	CNPV*4821A**	47,000	TXV		13.00	11.00	48,000	3.64	30,000	2.56	8.0
	CNPV*4824A**	47,000	TXV		13.00	11.00	48,000	3.64	30,000	2.56	8.0
	CNPV*6024A**	48,000	TXV		13.50	11.50	48,000	3.64	30,000	2.58	8.0
	CSPH*4812A**	47,500	TXV		13.00	11.00	48,000	3.70	30,000	2.58	8.0
	CSPH*6012A**	48,000	TXV		13.50	11.50	48,000	3.68	30,200	2.62	8.2
	PF4MNA049	48,000	TDR&TXV	14.00		12.00	47,500	3.72	29,600	2.64	8.2
	PF4MNA061	48,000	TDR&TXV	14.00		12.00	46,000	3.76	29,600	2.72	8.2
	PF4MNA060	48,000	TDR&TXV	13.50		11.50	46,000	3.58	30,400	2.60	8.0
060	*PF4MNA060	58,500	TDR&TXV	13.00		10.80	58,000	3.52	37,000	2.50	7.7
	PF4MNA061	59,000	TDR&TXV	13.50		11.20	57,500	3.66	36,200	2.58	7.7
	CAP**6021A**	58,000	TXV		13.00	10.80	57,500	3.52	36,600	2.50	7.7
	CAP**6024A**	58,000	TXV		13.00	10.80	57,500	3.52	36,600	2.50	7.7
	CNPH*6024A**	58,000	TXV		13.00	10.80	58,000	3.48	36,600	2.50	7.7
	CNPV*6024A**	58,000	TXV		13.00	10.80	58,000	3.48	36,600	2.50	7.7
	CSPH*6012A**	58,500	TXV		13.00	10.80	58,000	3.56	36,600	2.52	7.7

- Ratings are net values reflecting the effects of circulating fan heat. Supplemental electric heat is not included. Ratings are based on:
  Cooling Standard: 80°F (27°C) db 67°F (19°C) wb indoor entering air temperature and 95°F (35°C) db air entering outdoor unit.
  High–Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 47°F (8°C) db 43˚F (6°C) wb air entering outdoor unit.
  Low–Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 17°F (±9°C) db 15˚F (±10°C) wb air entering outdoor unit.

* Tested Combination

COP — Coefficient of Performance

EER – Energy Efficiency Ratio

HSPF — Heating Seasonal Performance Factor

SEER – Seasonal Energy Efficiency Ratio

TDR – Time–Delay Relay.

PH3A

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
PH3ANA018 Outdoor Section With PF4MNA018 Indoor Section																			
525	72	20.64	10.54	1.23	19.61	10.14	1.39	18.55	9.74	1.56	17.47	9.33	1.76	16.33	8.90	1.97	15.11	8.45	2.22
	67	18.78	13.08	1.25	17.82	12.66	1.40	16.83	12.24	1.58	15.83	11.82	1.77	14.77	11.38	1.99	13.63	10.91	2.24
	63	17.40	12.62	1.26	16.51	12.21	1.42	15.58	11.79	1.59	14.63	11.36	1.79	13.63	10.91	2.01	12.56	10.44	2.25
	62	17.05	15.58	1.26	16.18	15.14	1.42	15.29	14.69	1.59	14.39	14.21	1.79	13.52	13.52	2.01	12.66	12.66	2.25
	57	16.48	16.48	1.27	15.79	15.79	1.42	15.07	15.07	1.60	14.32	14.32	1.79	13.52	13.52	2.01	12.66	12.66	2.25
600	72	21.01	11.02	1.25	19.93	10.62	1.41	18.83	10.20	1.59	17.71	9.79	1.78	16.54	9.36	2.00	15.27	8.90	2.24
	67	19.12	13.88	1.27	18.12	13.46	1.43	17.10	13.03	1.60	16.05	12.60	1.80	14.96	12.15	2.02	13.79	11.68	2.26
	63	17.74	13.38	1.29	16.80	12.96	1.44	15.84	12.53	1.62	14.85	12.09	1.81	13.82	11.63	2.04	12.72	11.15	2.28
	62	17.42	16.67	1.29	16.53	16.19	1.45	15.64	15.64	1.62	14.84	14.84	1.81	14.00	14.00	2.03	13.09	13.09	2.27
	57	17.14	17.14	1.29	16.40	16.40	1.45	15.64	15.64	1.62	14.84	14.84	1.81	14.00	14.00	2.03	13.09	13.09	2.27
675	72	21.28	11.47	1.28	20.17	11.06	1.44	19.03	10.64	1.61	17.88	10.23	1.81	16.68	9.80	2.03	15.38	9.33	2.27
	67	19.38	14.65	1.30	18.34	14.22	1.46	17.29	13.79	1.63	16.22	13.35	1.83	15.10	12.89	2.05	13.91	12.39	2.29
	63	17.99	14.10	1.31	17.02	13.67	1.47	16.03	13.23	1.65	15.02	12.78	1.84	13.96	12.31	2.06	12.83	11.81	2.31
	62	17.74	17.61	1.31	16.91	16.91	1.47	16.10	16.10	1.64	15.27	15.27	1.84	14.39	14.39	2.06	13.44	13.44	2.30
	57	17.69	17.69	1.31	16.91	16.91	1.47	16.10	16.10	1.64	15.27	15.27	1.84	14.39	14.39	2.06	13.44	13.44	2.30

Cooling Indoor Model	Capacity	Power
*PF4MNA018	1.00	1.00
FF1ENP018	1.00	1.00
FF1ENP024	1.02	1.00
PF4MNA019	1.02	0.92
PF4MNA025	1.04	0.91
PF4MNA024	1.01	1.01
CAP**1814A**	0.99	0.99
CAP**2414A**	1.02	0.99
CAP**2417A**	1.02	0.99
CNPF*2418A**	1.02	0.99
CNPH*2417A**	1.02	0.99
CNPV*1814A**	0.99	0.97
CNPV*2414A**	1.02	0.99
CNPV*2417A**	1.02	0.99
CSPH*2412A**	1.02	0.99

See notes on pg. 16

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
PH3ANA024 Outdoor Section With PF4MNA024 Indoor Section																			
700	72	26.97	13.80	1.66	25.72	13.32	1.86	24.41	12.81	2.09	23.03	12.29	2.34	21.54	11.73	2.61	19.91	11.13	2.91
	67	24.65	17.15	1.66	23.49	16.65	1.86	22.26	16.12	2.09	20.97	15.57	2.34	19.59	15.00	2.62	18.09	14.38	2.92
	63	22.94	16.60	1.66	21.84	16.09	1.86	20.68	15.56	2.09	19.46	15.01	2.34	18.16	14.43	2.62	16.76	13.81	2.92
	62	22.50	20.46	1.66	21.42	19.93	1.86	20.30	19.36	2.09	19.14	18.75	2.34	17.96	17.96	2.62	16.82	16.82	2.92
	57	21.73	21.73	1.66	20.87	20.87	1.86	19.96	19.96	2.09	19.00	19.00	2.34	17.96	17.96	2.62	16.82	16.82	2.92
800	72	27.42	14.42	1.69	26.13	13.93	1.90	24.76	13.42	2.12	24.27	13.23	2.06	21.80	12.33	2.65	20.12	11.72	2.94
	67	25.09	18.20	1.69	23.88	17.68	1.90	22.60	17.15	2.12	21.27	16.60	2.37	19.84	16.01	2.65	18.29	15.38	2.95
	63	23.37	17.58	1.69	22.22	17.07	1.90	21.02	16.52	2.13	19.76	15.96	2.38	18.41	15.37	2.65	16.96	14.73	2.95
	62	22.96	21.88	1.69	21.86	21.30	1.90	20.72	20.69	2.13	19.67	19.67	2.38	18.57	18.57	2.65	17.37	17.37	2.95
	57	22.57	22.57	1.69	21.66	21.66	1.90	20.70	20.70	2.13	19.67	19.67	2.38	18.57	18.57	2.65	17.37	17.37	2.95
900	72	27.75	15.01	1.73	26.42	14.51	1.93	26.10	14.39	1.86	24.55	13.82	2.09	22.87	13.22	2.36	20.25	12.28	2.98
	67	25.40	19.19	1.73	24.16	18.68	1.93	22.85	18.13	2.16	21.48	17.57	2.41	20.02	16.97	2.69	18.43	16.31	2.98
	63	23.68	18.52	1.73	22.50	17.99	1.93	21.26	17.44	2.16	19.97	16.87	2.41	18.59	16.26	2.69	17.11	15.60	2.99
	62	23.36	23.12	1.73	22.32	22.31	1.93	21.30	21.30	2.16	20.23	20.23	2.41	19.07	19.07	2.69	17.81	17.81	2.99
	57	23.27	23.27	1.73	22.31	22.31	1.93	21.30	21.30	2.16	20.23	20.23	2.41	19.07	19.07	2.69	17.81	17.81	2.99

Cooling Indoor Model	Capacity	Power
*PF4MNA024	1.00	1.00
FF1ENP024	1.01	0.99
FF1ENP030	1.01	1.02
PF4MNA025	1.02	0.94
PF4MNA031	1.04	0.93
PF4MNA030	1.02	1.01
CAP**2414A**	1.01	1.01
CAP**2417A**	1.01	1.01
CAP**3014A**	1.02	1.01
CAP**3017A**	1.02	1.01
CNPF*2418A**	1.01	1.01
CNPH*2417A**	1.01	1.01
CNPH*3017A**	1.02	1.01
CNPV*2414A**	1.01	1.01
CNPV*2417A**	1.01	1.01
CNPV*3014A**	1.02	1.01
CNPV*3017A**	1.02	1.01
CSPH*2412A**	1.01	1.00
CSPH*3012A**	1.02	1.01
CNPV*3017A**	1.02	0.91
CSPH*2412A**	1.00	0.90
CSPH*3012A**	1.02	0.91

See notes on pg. 16

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
PH3ANA030 Outdoor Section With PF4MNA030 Indoor Section																			
875	72	35.79	17.64	2.16	34.09	16.98	2.44	32.29	16.30	2.74	30.43	15.61	3.07	28.40	14.86	3.43	26.15	14.05	3.82
	67	32.75	21.77	2.16	31.19	21.11	2.43	29.54	20.42	2.73	27.82	19.70	3.07	25.96	18.94	3.43	23.92	18.12	3.83
	63	30.50	21.10	2.15	29.04	20.44	2.43	27.50	19.74	2.73	25.89	19.02	3.07	24.15	18.26	3.43	22.26	17.45	3.83
	62	29.92	25.87	2.15	28.49	25.18	2.43	26.99	24.45	2.73	25.43	23.67	3.06	23.79	22.80	3.43	22.14	22.14	3.83
	57	28.64	28.64	2.15	27.51	27.51	2.42	26.31	26.31	2.73	25.04	25.04	3.07	23.66	23.66	3.43	22.14	22.14	3.83
1000	72	36.41	18.38	2.21	34.64	17.72	2.48	32.77	17.03	2.78	30.84	16.33	3.12	28.73	15.57	3.48	26.40	14.75	3.87
	67	33.35	23.03	2.20	31.72	22.36	2.48	30.00	21.65	2.78	28.22	20.92	3.11	26.27	20.15	3.47	24.17	19.31	3.87
	63	31.09	22.29	2.20	29.56	21.61	2.47	27.96	20.90	2.78	26.27	20.17	3.11	24.47	19.39	3.47	22.52	18.55	3.87
	62	30.53	27.59	2.20	29.06	26.85	2.47	27.52	26.05	2.77	25.93	25.93	3.11	24.45	24.45	3.48	22.82	22.82	3.87
	57	29.74	29.74	2.20	28.54	28.54	2.47	27.26	27.26	2.77	25.91	25.91	3.11	24.45	24.45	3.48	22.83	22.83	3.87
1125	72	36.88	19.09	2.25	35.06	18.43	2.53	33.12	17.73	2.83	31.13	17.01	3.16	28.96	16.25	3.52	26.56	15.42	3.91
	67	33.80	24.25	2.25	32.12	23.56	2.52	30.34	22.85	2.82	28.49	22.10	3.16	26.51	21.31	3.52	24.34	20.44	3.91
	63	31.54	23.44	2.24	29.96	22.75	2.52	28.30	22.03	2.82	26.56	21.28	3.15	24.71	20.48	3.52	22.71	19.60	3.92
	62	31.05	29.15	2.24	29.55	28.32	2.52	28.04	28.04	2.82	26.61	26.61	3.15	25.08	25.08	3.52	23.36	23.36	3.92
	57	30.66	30.66	2.24	29.39	29.39	2.52	28.04	28.04	2.82	26.62	26.62	3.15	25.08	25.08	3.52	23.37	23.37	3.92

Cooling Indoor Model	Capacity	Power
*PF4MNA030	1.00	1.00
FF1ENP030	0.99	0.99
FF1ENP036	1.00	1.00
PF4MNA037	1.00	0.96
PF4MNA031	1.00	0.94
PF4MNA036	1.00	1.01
CAP**3014A**	1.00	1.00
CAP**3017A**	1.00	1.00
CAP**3614A**	1.00	1.00
CAP**3617A**	1.00	1.00
CAP**3621A**	1.00	1.00
CNPF*3618A**	1.00	1.00
CNPH*3017A**	1.00	1.00
CNPH*3617A**	1.00	1.00
CNPV*3014A**	1.00	1.00
CNPV*3017A**	1.00	1.00
CNPV*3617A**	1.00	1.00
CNPV*3621A**	1.00	1.00
CSPH*3012A**	1.00	1.00
CSPH*3612A**	1.00	1.00

See notes on pg. 16

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
PH3ANA036 Outdoor Section With PF4MNA042 Indoor Section																			
1050	72	40.73	21.10	2.51	38.83	20.37	2.78	36.79	19.60	3.08	34.66	18.81	3.42	32.34	17.95	3.78	31.18	17.52	3.75
	67	37.22	26.47	2.51	35.44	25.71	2.78	33.56	24.91	3.08	31.57	24.08	3.42	29.44	23.20	3.78	27.10	22.25	4.17
	63	34.65	25.59	2.51	32.97	24.83	2.78	31.20	24.02	3.08	29.33	23.18	3.41	27.32	22.30	3.78	25.14	21.34	4.17
	62	34.00	31.76	2.51	32.37	30.94	2.78	30.68	30.05	3.08	28.95	28.95	3.41	27.33	27.33	3.78	26.26	26.26	3.72
	57	33.18	33.18	2.51	31.86	31.86	2.78	30.45	30.45	3.08	28.95	28.95	3.41	27.33	27.33	3.77	26.26	26.26	3.72
1200	72	41.35	22.07	2.57	39.36	21.33	2.84	37.27	20.55	3.14	35.06	19.74	3.47	32.66	18.88	3.84	30.03	17.94	4.23
	67	37.80	28.11	2.57	35.95	27.34	2.84	34.00	26.53	3.14	31.95	25.68	3.47	29.75	24.79	3.83	27.35	23.80	4.23
	63	35.22	27.14	2.57	33.47	26.36	2.84	31.63	25.53	3.14	29.70	24.68	3.47	27.64	23.77	3.83	25.39	22.78	4.22
	62	34.66	33.91	2.57	33.01	33.01	2.84	31.50	31.50	3.14	29.91	29.91	3.47	28.19	28.19	3.83	26.29	26.29	4.23
	57	34.40	34.40	2.57	32.99	32.99	2.84	31.50	31.50	3.14	29.91	29.91	3.47	28.19	28.19	3.83	26.29	26.29	4.23
1350	72	41.78	22.99	2.62	39.74	22.24	2.90	37.58	21.45	3.20	35.32	20.64	3.53	32.87	19.76	3.89	30.17	18.81	4.28
	67	38.22	29.69	2.62	36.32	28.90	2.90	34.31	28.07	3.20	32.21	27.20	3.53	29.96	26.28	3.89	27.51	25.25	4.28
	63	35.62	28.60	2.62	33.83	27.80	2.90	31.94	26.97	3.20	29.96	26.09	3.53	27.86	25.15	3.89	25.57	24.11	4.28
	62	35.39	35.39	2.62	33.91	33.91	2.90	32.35	32.35	3.20	30.68	30.68	3.53	28.88	28.88	3.89	26.88	26.88	4.28
	57	35.39	35.39	2.62	33.92	33.92	2.90	32.35	32.35	3.20	30.69	30.69	3.53	28.88	28.88	3.89	26.88	26.88	4.28

Cooling Indoor Model	Capacity	Power
*PF4MNA042	1.00	1.00
FF1ENP036	0.99	0.98
PF4MNA037	1.00	0.95
PF4MNA043	1.02	0.94
PF4MNA036	0.97	0.98
CAP**3614A**	0.95	0.96
CAP**3617A**	0.98	0.99
CAP**3621A**	0.98	0.99
CAP**4221A**	0.99	0.99
CAP**4224A**	0.99	0.99
CNPF*3618A**	0.98	0.99
CNPH*3617A**	0.98	0.99
CNPH*4221A**	0.99	0.99
CNPV*3617A**	0.98	0.99
CNPV*3621A**	0.98	0.99
CNPV*4221A**	0.99	0.99
CSPH*3612A**	0.98	0.97
CSPH*4212A**	0.99	0.98
CAP**3614A**	0.95	0.92
CNPH*3617A**	0.98	0.92
CNPH*4221A**	0.99	0.91
CSPH*3612A**	0.98	0.91
CSPH*4212A**	0.99	0.92
CAP**3617A**	0.98	0.91
CNPH*3617A**	0.98	0.93
CNPH*4221A**	0.99	0.90
CNPV*3617A**	0.98	0.93
CSPH*3612A**	0.98	0.91
CSPH*4212A**	0.99	0.92

See notes on pg. 16

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
PH3ANA042 Outdoor Section With PF4MNA042 Indoor Section																			
1225	72	48.26	24.63	3.08	46.00	23.75	3.41	43.63	22.84	3.77	41.15	21.90	4.17	38.47	20.90	4.61	35.49	19.80	5.09
	67	44.21	30.69	3.06	42.14	29.80	3.39	39.96	28.86	3.76	37.67	27.90	4.16	35.20	26.87	4.60	32.50	25.76	5.08
	63	41.23	29.75	3.05	39.29	28.85	3.38	37.24	27.91	3.75	35.09	26.94	4.15	32.79	25.91	4.60	30.28	24.80	5.08
	62	40.45	36.69	3.05	38.56	35.75	3.38	36.58	34.74	3.74	34.53	33.66	4.15	32.38	32.38	4.60	30.32	30.32	5.08
	57	39.05	39.05	3.04	37.54	37.54	3.37	35.93	35.93	3.74	34.22	34.22	4.15	32.37	32.37	4.60	30.32	30.32	5.08
1400	72	48.98	25.68	3.16	46.64	24.79	3.48	44.18	23.87	3.84	41.64	22.93	4.25	38.84	21.90	4.68	35.77	20.79	5.16
	67	44.93	32.50	3.14	42.77	31.59	3.47	40.50	30.64	3.83	38.12	29.66	4.23	35.57	28.61	4.68	32.78	27.46	5.16
	63	41.93	31.44	3.13	39.91	30.53	3.45	37.78	29.58	3.82	35.55	28.58	4.23	33.17	27.53	4.67	30.58	26.38	5.16
	62	41.22	39.13	3.12	39.28	38.11	3.45	37.28	36.95	3.82	35.34	35.34	4.22	33.37	33.37	4.67	31.19	31.19	5.16
	57	40.48	40.48	3.12	38.87	38.87	3.45	37.16	37.16	3.82	35.34	35.34	4.22	33.38	33.38	4.67	31.19	31.19	5.16
1575	72	49.51	26.67	3.23	47.10	25.77	3.56	44.56	24.84	3.92	41.96	23.89	4.32	39.08	22.86	4.76	35.93	21.74	5.23
	67	45.43	34.21	3.21	43.21	33.29	3.54	40.87	32.32	3.90	38.43	31.32	4.31	35.82	30.25	4.75	32.96	29.06	5.23
	63	42.44	33.06	3.20	40.35	32.13	3.53	38.16	31.15	3.89	35.87	30.14	4.30	33.43	29.06	4.74	30.78	27.86	5.23
	62	41.88	41.27	3.20	39.96	39.96	3.53	38.15	38.15	3.89	36.24	36.24	4.30	34.17	34.17	4.74	31.87	31.87	5.23
	57	41.65	41.65	3.20	39.96	39.96	3.53	38.15	38.15	3.89	36.24	36.24	4.30	34.18	34.18	4.74	31.87	31.87	5.23

Cooling Indoor Model	Capacity	Power
*PF4MNA042	1.00	1.00
PF4MNA043	1.02	0.95
PF4MNA049	1.05	0.93
PF4MNA048	1.02	1.01
CAP**4221A**	0.99	0.99
CAP**4224A**	0.99	0.99
CAP**4817A**	1.00	0.97
CAP**4821A**	1.01	0.99
CAP**4824A**	1.01	0.99
CNPF*4818A**	1.00	0.99
CNPH*4221A**	1.00	1.00
CNPH*4821A**	1.01	0.99
CNPV*4221A**	0.99	0.99
CNPV*4821A**	1.01	0.99
CNPV*4824A**	1.01	0.99
CSPH*4212A**	0.99	0.96
CSPH*4812A**	1.01	0.98

See notes on pg. 16

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
PH3ANA048 Outdoor Section With PF4MNA048 Indoor Section																			
1400	72	56.99	28.50	3.33	54.20	27.43	3.76	51.28	26.33	4.22	48.25	25.21	4.72	45.04	24.03	5.25	41.55	22.77	5.82
	67	52.08	35.47	3.36	49.50	34.38	3.78	46.83	33.26	4.23	44.04	32.10	4.72	41.11	30.90	5.25	37.92	29.61	5.81
	63	48.43	34.32	3.37	46.02	33.22	3.79	43.52	32.10	4.24	40.92	30.94	4.72	38.19	29.75	5.24	35.23	28.46	5.80
	62	47.48	42.35	3.37	45.13	41.21	3.79	42.72	40.01	4.24	40.24	38.73	4.72	37.77	37.77	5.24	35.36	35.36	5.80
	57	45.85	45.85	3.38	43.97	43.97	3.79	42.02	42.02	4.24	39.96	39.96	4.72	37.77	37.77	5.24	35.36	35.36	5.80
1600	72	57.89	29.74	3.41	55.00	28.67	3.84	51.96	27.55	4.30	48.82	26.41	4.80	45.51	25.22	5.34	41.89	23.95	5.90
	67	52.98	37.62	3.44	50.29	36.51	3.86	47.50	35.36	4.32	44.61	34.19	4.81	41.57	32.96	5.33	38.27	31.63	5.90
	63	49.31	36.34	3.45	46.79	35.22	3.87	44.18	34.07	4.32	41.48	32.89	4.81	38.66	31.66	5.33	35.60	30.34	5.89
	62	48.44	45.27	3.46	46.03	44.02	3.87	43.55	43.55	4.32	41.33	41.33	4.81	39.00	39.00	5.33	36.43	36.43	5.89
	57	47.61	47.61	3.46	45.61	45.61	3.87	43.52	43.52	4.32	41.33	41.33	4.81	39.01	39.01	5.33	36.44	36.44	5.89
1800	72	58.54	30.92	3.49	55.56	29.83	3.92	52.43	28.71	4.39	49.21	27.56	4.89	45.80	26.36	5.42	42.10	25.07	5.99
	67	53.62	39.66	3.52	50.84	38.53	3.95	47.96	37.36	4.40	44.99	36.17	4.90	41.88	34.91	5.42	38.50	33.54	5.99
	63	49.95	38.25	3.54	47.35	37.12	3.96	44.66	35.95	4.41	41.88	34.74	4.90	38.98	33.48	5.42	35.85	32.10	5.98
	62	49.26	47.81	3.54	46.95	46.95	3.96	44.75	44.75	4.41	42.44	42.44	4.90	39.99	39.99	5.42	37.27	37.27	5.98
	57	49.06	49.06	3.54	46.96	46.96	3.96	44.75	44.75	4.41	42.44	42.44	4.90	39.99	39.99	5.42	37.28	37.28	5.98

Cooling Indoor Model	Capacity	Power
*PF4MNA048	1.00	1.00
PF4MNA049	1.01	0.93
PF4MNA061	1.01	0.93
PF4MNA060	1.01	0.97
CAP**4817A**	0.98	0.98
CAP**4821A**	0.99	0.99
CAP**4824A**	0.99	0.99
CAP**6021A**	1.01	0.97
CAP**6024A**	1.01	0.97
CNPF*4818A**	0.97	0.97
CNPH*4821A**	0.99	0.99
CNPH*6024A**	1.01	0.97
CNPV*4821A**	0.99	0.99
CNPV*4824A**	0.99	0.99
CNPV*6024A**	1.01	0.97
CSPH*4812A**	1.00	1.00
CSPH*6012A**	1.01	0.97

See notes on pg. 16

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES deg °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
PH3ANA060 Outdoor Section With PF4MNA060 Indoor Section																			
1750	72	70.34	35.38	4.52	67.10	34.14	4.98	63.63	32.83	5.48	60.01	31.48	6.03	56.06	30.03	6.63	51.70	28.45	7.27
	67	64.72	44.25	4.46	61.72	42.98	4.92	58.50	41.62	5.42	55.15	40.23	5.97	51.50	38.73	6.57	47.50	37.11	7.21
	63	60.52	42.98	4.41	57.68	41.67	4.87	54.66	40.31	5.37	51.50	38.90	5.92	48.09	37.40	6.52	44.37	35.78	7.17
	62	59.39	53.03	4.40	56.60	51.67	4.86	53.67	50.23	5.36	50.63	48.68	5.91	47.46	47.46	6.51	44.40	44.40	7.17
	57	57.36	57.36	4.38	55.12	55.12	4.84	52.73	52.73	5.35	50.21	50.21	5.90	47.45	47.45	6.51	44.40	44.40	7.17
2000	72	71.28	36.87	4.64	67.97	35.64	5.09	64.37	34.31	5.59	60.64	32.95	6.14	56.56	31.48	6.74	52.07	29.88	7.39
	67	65.71	46.88	4.58	62.60	45.59	5.03	59.26	44.22	5.53	55.79	42.80	6.08	52.01	41.28	6.69	47.89	39.62	7.33
	63	61.54	45.45	4.53	58.58	44.14	4.99	55.44	42.75	5.49	52.17	41.32	6.04	48.63	39.78	6.64	44.80	38.11	7.28
	62	60.48	56.64	4.52	57.63	55.18	4.98	54.66	54.31	5.48	51.85	51.85	6.03	48.91	48.91	6.64	45.66	45.66	7.30
	57	59.46	59.46	4.51	57.07	57.07	4.97	54.53	54.53	5.48	51.85	51.85	6.03	48.92	48.92	6.64	45.67	45.67	7.30
2250	72	71.96	38.30	4.75	68.56	37.06	5.21	64.87	35.72	5.71	61.04	34.35	6.26	56.86	32.87	6.86	52.26	31.26	7.50
	67	66.40	49.38	4.70	63.21	48.09	5.15	59.77	46.69	5.65	56.21	45.25	6.20	52.34	43.69	6.80	48.13	41.98	7.44
	63	62.26	47.81	4.65	59.21	46.48	5.10	55.98	45.06	5.60	52.62	43.60	6.15	49.00	42.02	6.75	45.07	40.30	7.40
	62	61.41	59.80	4.64	58.65	58.65	5.10	55.97	55.97	5.61	53.15	53.15	6.16	50.06	50.06	6.77	46.64	46.64	7.42
	57	61.16	61.16	4.64	58.65	58.65	5.10	55.97	55.97	5.61	53.16	53.16	6.16	50.07	50.07	6.77	46.65	46.65	7.42

Cooling Indoor Model	Capacity	Power
*PF4MNA060	1.00	1.00
PF4MNA061	1.01	0.97
CAP**6021A**	0.99	0.99
CAP**6024A**	0.99	0.99
CNPH*6024A**	0.99	0.99
CNPV*6024A**	0.99	0.99
CSPH*6012A**	1.00	1.00

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per ARI standard 210/240−94. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

* Tested combination.

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).

** System kw is total of indoor and outdoor unit kilowatts.

†† At TVA rating indoor condition (75°F edb/63°F ewb). All other indoor air temperatures are at 80°F edb.

EWB — Entering Wet Bulb

HEAT PUMP HEATING PERFORMANCE

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg °F (°C)																							
		−3 (−19.4)			7 (−13.9)			17 (−8.3)			27 (−2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
EDB	CFM	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†
		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*	
PH3ANA018 Outdoor Section With PF4MNA018 Indoor Section																									
65	525	6.43	5.92	1.23	8.38	7.70	1.28	10.46	9.53	1.33	12.69	11.27	1.38	15.19	13.83	1.44	17.98	17.98	1.52	20.66	20.66	1.59	23.20	23.20	1.67
	600	6.59	6.06	1.25	8.56	7.87	1.29	10.68	9.74	1.33	12.92	11.48	1.37	15.51	14.11	1.43	18.25	18.25	1.49	20.72	20.72	1.55	23.20	23.20	1.61
	675	6.74	6.20	1.27	8.72	8.01	1.31	10.85	9.89	1.34	13.13	11.66	1.38	15.74	14.33	1.43	18.51	18.51	1.48	20.74	20.74	1.53	23.06	23.06	1.58
70	525	6.09	5.60	1.27	8.12	7.46	1.33	10.19	9.29	1.39	12.41	11.02	1.44	14.88	13.54	1.51	17.65	17.65	1.60	20.42	20.42	1.67	22.95	22.95	1.75
	600	6.25	5.75	1.29	8.28	7.61	1.35	10.39	9.47	1.39	12.63	11.22	1.44	15.15	13.79	1.50	18.00	18.00	1.57	20.51	20.51	1.63	23.03	23.03	1.70
	675	6.40	5.89	1.31	8.44	7.75	1.36	10.56	9.63	1.40	12.83	11.39	1.44	15.39	14.01	1.50	18.16	18.16	1.55	20.56	20.56	1.60	22.95	22.95	1.66
75	525	5.73	5.27	1.32	7.79	7.16	1.39	9.90	9.03	1.45	12.14	10.78	1.51	14.56	13.25	1.58	17.32	17.32	1.67	20.17	20.17	1.76	22.69	22.69	1.84
	600	5.89	5.42	1.34	7.97	7.32	1.40	10.10	9.21	1.46	12.36	10.97	1.51	14.84	13.50	1.57	17.64	17.64	1.65	20.35	20.35	1.71	22.82	22.82	1.79
	675	6.04	5.56	1.36	8.13	7.47	1.42	10.28	9.37	1.47	12.55	11.15	1.51	15.07	13.71	1.57	17.88	17.88	1.63	20.38	20.38	1.68	22.80	22.80	1.75

Heating Indoor Model	Capacity	Power
*PF4MNA018	1.00	1.00
FF1ENP018	1.00	1.00
FF1ENP024	0.99	0.97
PF4MNA019	0.98	0.92
PF4MNA025	0.97	0.89
PF4MNA024	0.99	0.99
CAP**1814A**	1.00	1.01
CAP**2414A**	1.00	0.97
CAP**2417A**	1.00	0.97
CNPF*2418A**	1.00	0.95
CNPH*2417A**	1.00	0.95
CNPV*1814A**	1.00	0.97
CNPV*2414A**	1.00	0.95
CNPV*2417A**	1.00	0.95
CSPH*2412A**	0.99	0.95

See note on pg. 23

HEAT PUMP HEATING PERFORMANCE (CONT.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg °F (°C)																							
		−3 (−19.4)			7 (−13.9)			17 (−8.3)			27 (−2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
EDB	CFM	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†
		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*	
PH3ANA024 Outdoor Section With PF4MNA024 Indoor Section																									
65	700	9.58	8.82	1.52	11.98	11.01	1.59	14.58	13.29	1.66	17.51	15.56	1.75	20.82	18.94	1.86	24.20	24.20	1.96	27.14	27.14	2.06	30.15	30.15	2.17
	800	9.77	8.99	1.54	12.19	11.20	1.60	14.81	13.51	1.66	17.80	15.81	1.74	21.14	19.24	1.84	24.17	24.17	1.91	26.94	26.94	2.00	29.60	29.60	2.09
	900	9.94	9.15	1.56	12.37	11.37	1.61	15.03	13.70	1.67	18.06	16.04	1.74	21.40	19.47	1.83	24.07	24.07	1.89	26.59	26.59	1.97	28.87	28.87	2.03
70	700	9.29	8.54	1.59	11.70	10.75	1.67	14.30	13.04	1.74	17.18	15.26	1.84	20.47	18.63	1.95	23.95	23.95	2.06	26.95	26.95	2.17	30.01	30.01	2.29
	800	9.48	8.72	1.61	11.91	10.94	1.67	14.53	13.25	1.74	17.46	15.51	1.82	20.79	18.92	1.93	24.00	24.00	2.01	26.83	26.83	2.11	29.61	29.61	2.20
	900	9.65	8.87	1.63	12.09	11.11	1.69	14.73	13.43	1.75	17.71	15.73	1.83	21.06	19.16	1.92	23.97	23.97	1.99	26.60	26.60	2.07	29.03	29.03	2.15
75	700	8.96	8.24	1.67	11.40	10.48	1.75	14.02	12.78	1.83	16.85	14.97	1.93	20.14	18.33	2.05	23.63	23.63	2.17	26.71	26.71	2.28	29.80	29.80	2.41
	800	9.15	8.42	1.68	11.61	10.67	1.75	14.25	12.99	1.83	17.13	15.21	1.91	20.44	18.60	2.03	23.84	23.84	2.12	26.68	26.68	2.22	29.54	29.54	2.32
	900	9.33	8.58	1.70	11.80	10.84	1.77	14.45	13.17	1.83	17.37	15.43	1.91	20.71	18.84	2.02	23.82	23.82	2.09	26.53	26.53	2.18	29.10	29.10	2.27

Heating Indoor Model	Capacity	Power
*PF4MNA024	1.00	1.00
FF1ENP024	1.00	1.00
FF1ENP030	1.01	1.00
PF4MNA025	0.99	0.94
PF4MNA031	0.98	0.91
PF4MNA030	1.00	0.97
CAP**2414A**	1.02	1.00
CAP**2417A**	1.02	1.00
CAP**3014A**	0.98	0.97
CAP**3017A**	0.98	0.97
CNPF*2418A**	1.02	0.98
CNPH*2417A**	1.02	0.98
CNPH*3017A**	0.98	0.97
CNPV*2414A**	1.02	0.98
CNPV*2417A**	1.02	0.98
CNPV*3014A**	0.98	0.97
CNPV*3017A**	0.98	0.97
CSPH*2412A**	1.01	0.97
CSPH*3012A**	0.97	0.96

See note on pg. 23

HEAT PUMP HEATING PERFORMANCE (CONT.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg °F (°C)																					
		−3 (−19.4)			7 (−13.9)			17 (−8.3)			27 (−2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
EDB	CFM	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†
		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*	
PH3ANA030 Outdoor Section With PF4MNA030 Indoor Section																							
65	875	12.02	11.06	1.89	15.08	13.85	1.97	18.33	16.72	2.07	21.82	19.38	2.18	25.66	23.35	2.31	29.99	29.99	2.47	34.77	34.77	2.64	39.32	39.32	2.79
	1000	12.26	11.28	1.90	15.33	14.09	1.98	18.61	16.97	2.06	22.12	19.64	2.16	26.04	23.69	2.28	30.47	30.47	2.42	35.11	35.11	2.55	39.58	39.58	2.69
	1125	12.47	11.47	1.92	15.56	14.30	1.99	18.86	17.19	2.07	22.38	19.88	2.15	26.41	24.04	2.26	30.87	30.87	2.39	35.28	35.28	2.49	39.69	39.69	2.63
70	875	11.62	10.69	1.98	14.71	13.52	2.08	17.98	16.40	2.18	21.49	19.08	2.30	25.25	22.98	2.43	29.55	29.55	2.60	34.31	34.31	2.79	38.81	38.81	2.94
	1000	11.85	10.91	2.00	14.97	13.76	2.08	18.26	16.65	2.17	21.79	19.35	2.28	25.64	23.33	2.40	30.00	30.00	2.55	34.70	34.70	2.69	39.17	39.17	2.83
	1125	12.07	11.10	2.02	15.20	13.97	2.10	18.51	16.88	2.18	22.05	19.59	2.27	25.97	23.63	2.38	30.39	30.39	2.52	34.94	34.94	2.63	39.35	39.35	2.77
75	875	11.19	10.29	2.07	14.32	13.16	2.18	17.61	16.06	2.29	21.13	18.77	2.42	24.86	22.62	2.56	29.13	29.13	2.74	33.84	33.84	2.95	38.33	38.33	3.09
	1000	11.42	10.51	2.09	14.58	13.40	2.19	17.90	16.32	2.29	21.44	19.04	2.40	25.23	22.95	2.52	29.56	29.56	2.68	34.25	34.25	2.84	38.72	38.72	2.98
	1125	11.64	10.70	2.12	14.82	13.61	2.20	18.15	16.55	2.29	21.72	19.29	2.39	25.55	23.25	2.50	29.93	29.93	2.65	34.55	34.55	2.78	38.96	38.96	2.91

Heating Indoor Model	Capacity	Power
*PF4MNA030	1.00	1.00
FF1ENP030	1.00	1.01
FF1ENP036	1.00	0.99
PF4MNA037	1.00	0.96
PF4MNA031	1.00	0.96
PF4MNA036	1.00	1.00
CAP**3014A**	1.00	1.00
CAP**3017A**	1.00	1.00
CAP**3614A**	1.00	0.99
CAP**3617A**	1.00	0.99
CAP**3621A**	1.00	0.99
CNPF*3618A**	1.00	0.99
CNPH*3017A**	1.00	0.99
CNPH*3617A**	1.00	0.99
CNPV*3014A**	1.00	0.99
CNPV*3017A**	1.00	0.99
CNPV*3617A**	1.00	0.99
CNPV*3621A**	1.00	0.99
CSPH*3012A**	1.00	0.99
CSPH*3612A**	1.00	0.95

See note on pg. 23

HEAT PUMP HEATING PERFORMANCE (CONT.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg °F (°C)																					
		−3 (−19.4)			7 (−13.9)			17 (−8.3)			27 (−2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
EDB	CFM	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†
		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*	
PH3ANA036 Outdoor Section With PF4MNA042 Indoor Section																							
65	1050	14.42	13.27	2.31	18.07	16.60	2.40	21.93	19.99	2.50	26.06	23.15	2.60	30.80	28.03	2.74	35.94	35.94	2.86	40.65	40.65	2.99	45.56	45.56	3.15
	1200	14.73	13.55	2.34	18.39	16.90	2.43	22.28	20.32	2.51	26.48	23.52	2.60	31.28	28.47	2.72	36.09	36.09	2.82	40.59	40.59	2.93	45.17	45.17	3.06
	1350	15.01	13.81	2.38	18.68	17.17	2.46	22.60	20.61	2.53	26.84	23.84	2.62	31.71	28.85	2.73	36.12	36.12	2.80	40.35	40.35	2.90	44.12	44.12	3.00
70	1050	13.90	12.79	2.40	17.58	16.15	2.50	21.48	19.59	2.61	25.62	22.75	2.72	30.21	27.49	2.86	35.42	35.42	3.00	40.20	40.20	3.13	45.16	45.16	3.30
	1200	14.21	13.08	2.43	17.92	16.47	2.53	21.84	19.91	2.62	26.00	23.10	2.72	30.77	28.00	2.85	35.80	35.80	2.95	40.30	40.30	3.07	45.00	45.00	3.21
	1350	14.50	13.34	2.47	18.22	16.74	2.56	22.16	20.21	2.64	26.37	23.42	2.73	31.18	28.37	2.85	35.83	35.83	2.93	40.17	40.17	3.04	44.49	44.49	3.15
75	1050	13.33	12.27	2.49	17.07	15.69	2.61	21.00	19.15	2.72	25.17	22.35	2.84	29.67	27.00	2.98	34.85	34.85	3.14	39.73	39.73	3.28	44.72	44.72	3.45
	1200	13.65	12.55	2.53	17.42	16.01	2.63	21.37	19.49	2.73	25.56	22.70	2.84	30.16	27.44	2.97	35.37	35.37	3.09	39.94	39.94	3.22	44.67	44.67	3.36
	1350	13.93	12.82	2.57	17.72	16.28	2.66	21.71	19.79	2.75	25.92	23.02	2.85	30.58	27.82	2.97	35.60	35.60	3.07	39.93	39.93	3.18	44.35	44.35	3.31

Heating Indoor Model	Capacity	Power
*PF4MNA042	1.00	1.00
FF1ENP036	0.99	1.02
PF4MNA037	0.98	0.97
PF4MNA043	0.98	0.93
PF4MNA036	0.98	1.04
CAP**3614A**	0.98	1.03
CAP**3617A**	0.99	1.02
CAP**3621A**	0.99	1.02
CAP**4221A**	1.00	1.01
CAP**4224A**	1.00	1.01
CNPF*3618A**	0.99	1.03
CNPH*3617A**	0.99	1.03
CNPH*4221A**	1.00	1.01
CNPV*3617A**	0.99	1.03
CNPV*3621A**	0.99	1.03
CNPV*4221A**	1.00	1.01
CSPH*3612A**	0.99	0.98
CSPH*4212A**	1.00	0.97

See note on pg. 23

HEAT PUMP HEATING PERFORMANCE (CONT.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg °F (°C)																					
		−3 (−19.4)			7 (−13.9)			17 (−8.3)			27 (−2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
EDB	CFM	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†
		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*	
PH3ANA042 Outdoor Section With PF4MNA042 Indoor Section																							
65	1225	17.53	16.13	2.72	21.61	19.86	2.83	26.00	23.71	2.95	30.74	27.30	3.08	36.21	32.95	3.26	42.09	42.09	3.43	47.60	47.60	3.60	53.07	53.07	3.79
	1400	17.88	16.45	2.75	21.99	20.20	2.85	26.39	24.06	2.96	31.20	27.71	3.08	36.75	33.44	3.25	42.44	42.44	3.38	47.57	47.57	3.53	52.73	52.73	3.69
	1575	18.21	16.75	2.80	22.32	20.51	2.89	26.75	24.39	2.99	31.61	28.08	3.10	37.22	33.87	3.25	42.50	42.50	3.36	47.37	47.37	3.49	52.15	52.15	3.63
70	1225	17.06	15.69	2.84	21.17	19.45	2.96	25.58	23.32	3.09	30.29	26.90	3.23	35.68	32.47	3.42	41.58	41.58	3.60	47.11	47.11	3.77	52.62	52.62	3.98
	1400	17.40	16.01	2.88	21.52	19.78	2.99	25.97	23.68	3.10	30.69	27.26	3.23	36.21	32.96	3.40	42.00	42.00	3.55	47.24	47.24	3.70	52.50	52.50	3.87
	1575	17.74	16.32	2.92	21.88	20.11	3.02	26.32	24.00	3.12	31.11	27.63	3.24	36.68	33.38	3.40	42.19	42.19	3.52	47.15	47.15	3.66	52.04	52.04	3.81
75	1225	16.54	15.21	2.96	20.69	19.02	3.09	25.13	22.91	3.23	29.85	26.51	3.39	35.03	31.88	3.57	41.04	41.04	3.78	46.60	46.60	3.95	52.13	52.13	4.17
	1400	16.89	15.54	3.00	21.08	19.37	3.12	25.53	23.28	3.24	30.29	26.90	3.38	35.58	32.38	3.55	41.57	41.57	3.72	46.84	46.84	3.88	52.10	52.10	4.06
	1575	17.21	15.83	3.05	21.41	19.67	3.16	25.90	23.62	3.27	30.67	27.24	3.40	36.15	32.90	3.56	41.81	41.81	3.69	46.84	46.84	3.84	51.83	51.83	3.99

Heating Indoor Model	Capacity	Power
*PF4MNA042	1.00	1.00
PF4MNA043	1.00	0.96
PF4MNA049	0.95	0.89
PF4MNA048	0.98	0.97
CAP**4221A**	1.01	1.02
CAP**4224A**	1.01	1.02
CAP**4817A**	0.98	0.95
CAP**4821A**	1.00	0.98
CAP**4824A**	1.00	0.98
CNPF*4818A**	1.00	0.99
CNPH*4221A**	1.01	1.02
CNPH*4821A**	1.00	0.97
CNPV*4221A**	1.01	1.02
CNPV*4821A**	1.00	0.97
CNPV*4824A**	1.00	0.97
CSPH*4212A**	1.01	0.98
CSPH*4812A**	1.00	0.96

See note on pg. 23

HEAT PUMP HEATING PERFORMANCE (CONT.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg °F (°C)																							
		−3 (−19.4)			7 (−13.9)			17 (−8.3)			27 (−2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
EDB	CFM	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†
		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*	
PH3ANA048 Outdoor Section With PF4MNA048 Indoor Section																									
65	1400	20.81	19.15	3.06	25.42	23.36	3.19	30.38	27.70	3.32	35.87	31.86	3.47	42.17	38.37	3.62	48.31	48.31	3.79	54.67	54.67	3.98	57.60	57.60	4.06
	1600	21.19	19.50	3.11	25.83	23.74	3.22	30.81	28.09	3.34	36.40	32.33	3.47	42.62	38.79	3.60	48.38	48.38	3.74	52.00	52.00	3.83	53.71	53.71	3.86
	1800	21.55	19.83	3.16	26.21	24.08	3.26	31.20	28.45	3.37	36.89	32.77	3.50	42.78	38.93	3.60	48.08	48.08	3.73	49.39	49.39	3.74	50.69	50.69	3.76
70	1400	20.34	18.71	3.19	24.97	22.94	3.33	29.94	27.30	3.47	35.33	31.38	3.63	41.59	37.84	3.81	47.84	47.84	3.97	54.25	54.25	4.18	58.09	58.09	4.30
	1600	20.73	19.07	3.24	25.38	23.33	3.36	30.38	27.70	3.49	35.85	31.84	3.63	42.17	38.38	3.78	48.00	48.00	3.93	52.90	52.90	4.06	54.76	54.76	4.10
	1800	21.08	19.40	3.30	25.76	23.67	3.41	30.78	28.07	3.53	36.32	32.25	3.65	42.48	38.65	3.78	47.99	47.99	3.91	50.45	50.45	3.97	51.89	51.89	3.98
75	1400	19.84	18.25	3.33	24.49	22.50	3.48	29.50	26.89	3.63	34.84	30.94	3.80	41.03	37.33	4.01	47.37	47.37	4.17	53.77	53.77	4.39	58.58	58.58	4.55
	1600	20.23	18.61	3.38	24.91	22.89	3.51	29.94	27.30	3.65	35.31	31.36	3.80	41.61	37.87	3.96	47.60	47.60	4.12	53.57	53.57	4.30	55.57	55.57	4.34
	1800	20.59	18.94	3.43	25.29	23.24	3.56	30.34	27.67	3.68	35.77	31.77	3.82	42.06	38.28	3.96	47.67	47.67	4.10	51.31	51.31	4.20	52.92	52.92	4.22

Heating Indoor Model	Capacity	Power
*PF4MNA048	1.00	1.00
PF4MNA049	0.99	0.95
PF4MNA061	0.96	0.91
PF4MNA060	0.96	0.96
CAP**4817A**	1.00	0.99
CAP**4821A**	1.00	0.98
CAP**4824A**	0.99	0.97
CAP**6021A**	0.95	0.96
CAP**6024A**	0.95	0.96
CNPF*4818A**	1.00	1.03
CNPH*4821A**	1.00	0.98
CNPH*6024A**	1.00	0.98
CNPV*4821A**	1.00	0.98
CNPV*4824A**	1.00	0.98
CNPV*6024A**	1.00	0.98
CSPH*4812A**	1.00	0.97
CSPH*6012A**	1.00	0.97

See note on pg. 23

HEAT PUMP HEATING PERFORMANCE (CONT.)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES deg °F (°C)																					
		−3 (−19.4)			7 (−13.9)			17 (−8.3)			27 (−2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
EDB	CFM	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†	Capacity MBtuh		Total System KW†
		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*		Total	Integ*	
PH3ANA06 0Outdoor Section With PF4MNA060 Indoor Section																							
65	1750	24.06	22.14	2.98	30.37	27.90	3.14	37.01	33.74	3.31	44.09	39.16	3.49	51.99	47.31	3.70	60.58	60.58	3.88	68.82	68.82	4.11	77.46	77.46	4.36
	2000	24.32	22.37	2.95	30.63	28.14	3.10	37.33	34.04	3.24	44.47	39.50	3.41	52.57	47.84	3.59	60.71	60.71	3.75	68.81	68.81	3.94	75.63	75.63	4.11
	2250	24.52	22.56	2.93	30.87	28.37	3.06	37.59	34.27	3.20	44.78	39.77	3.35	53.02	48.24	3.50	60.66	60.66	3.65	68.43	68.43	3.82	72.29	72.29	3.89
70	1750	23.20	21.34	3.13	29.59	27.19	3.31	36.29	33.09	3.49	43.39	38.54	3.68	51.21	46.60	3.91	59.77	59.77	4.10	67.95	67.95	4.33	76.55	76.55	4.60
	2000	23.45	21.58	3.10	29.88	27.46	3.27	36.63	33.40	3.42	43.77	38.87	3.60	51.69	47.04	3.80	60.02	60.02	3.96	68.06	68.06	4.16	75.59	75.59	4.36
	2250	23.66	21.77	3.08	30.11	27.67	3.23	36.88	33.62	3.38	44.07	39.14	3.54	52.16	47.47	3.70	60.03	60.03	3.86	67.84	67.84	4.04	72.73	72.73	4.14
75	1750	22.27	20.49	3.29	28.76	26.42	3.48	35.52	32.38	3.67	42.68	37.91	3.88	50.42	45.89	4.12	58.93	58.93	4.32	67.07	67.07	4.57	75.59	75.59	4.84
	2000	22.53	20.73	3.26	29.05	26.70	3.44	35.84	32.68	3.61	43.07	38.25	3.80	50.92	46.34	4.01	59.25	59.25	4.18	67.27	67.27	4.39	75.25	75.25	4.61
	2250	22.74	20.92	3.24	29.29	26.92	3.41	36.12	32.93	3.56	43.36	38.51	3.74	51.40	46.77	3.92	59.39	59.39	4.07	67.19	67.19	4.26	72.81	72.81	4.39

Heating Indoor Model	Capacity	Power
*PF4MNA060	1.00	1.00
PF4MNA061	0.99	0.96
CAP**6021A**	0.99	0.99
CAP**6024A**	0.99	0.99
CNPH*6024A**	1.00	1.01
CNPV*6024A**	1.00	1.01
CSPH*6012A**	1.00	0.99

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

* The Btuh heating capacity values shown are net integrated values from which the defrost effect has been subtracted. The Btuh heating from supplement heaters should be added to those values to obtain total system capacity.

† The kW values include the compressor, outdoor fan motor, and indoor blower motor. The kW from supplement heaters should be added to these values to obtain total system kilowatts.

EDB — Entering Dry Bulb

SYSTEM DESIGN

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 115°F (46.1°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Maximum elevation of indoor coil above or below base of outdoor unit is: indoor coil above = 80 ft (24.38 m), indoor coil below = 200 ft (60.96).
6. For interconnecting refrigerant tube lengths greater than 80 ft (24.38 m) horizontal or 20 ft (6.10 m) vertical differential, consult Residential Split System Long-Line Application Guideline available from equipment distributor.
7. Crankcase heater required when interconnecting refrigerant tube length exceeds 80 ft (24.38 m).
8. If any refrigerant tubing is buried, provide a minimum 6 in (152.4 mm). vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in (914.4 mm). may be buried without further consideration.
9. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.