

**288BNV EVOLUTION® V  
VARIABLE SPEED HEAT PUMP  
WITH PURON® REFRIGERANT  
2, 3, AND 4-TON  
(5-TON COMING Q4 2014)**



## Product Data



The Evolution® V heat pump offers high-efficiency variable speed performance in a remarkably small cabinet and provides up to 11 HSPF heating efficiency and up to 18 SEER cooling efficiency. The variable speed inverter capacity control delivers up to 5 stages of operation for exceptional load matching, dehumidification and zoning performance.

This product has been designed and manufactured to provide flexible system matching and work with a wide variety of indoor units and controls.

**NOTE:** Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory ([www.ahridirectory.org](http://www.ahridirectory.org)) for the most up-to-date ratings information.

### INDUSTRY LEADING FEATURES / BENEFITS

#### Energy Efficiency

- Up to 18 SEER /12.5 EER / 11 HSPF
- Microtube Technology™ refrigeration system

#### Sound

- Sound level as low as 55 dBA in low speed (Silencer System II).
- Soft start and smooth ramp to operating speeds

#### Comfort

- Variable speed compressor operates at 5 stages with capacity range from as wide as 25-100%
- Air cooled Inverter variable speed drive
  - System requires Evolution® Connex™ Control with version 11 software or newer for 5-stage operation.
  - Ratings provided with 2-stage thermostats and suitable non-communicating indoor products for 2-stage operation.

#### Reliability

- Puron® refrigerant - environmentally sound, won't deplete the ozone layer and low lifetime service cost.
- Front-seating service valves
- Inverter control drives compressor and fan motor
- No control module attached to fan motor
- Evolution intelligence monitors critical system parameters
- Pressure equalizer valve for easy compressor starting
- High pressure switch
- Suction pressure transducer
- Electronic expansion valve (EXV) for heating, TXV for cooling
- Compressor discharge temperature sensor
- Suction temperature sensor
- Filter drier (field installed)
- Internal crankcase heater standard

#### Flexibility and installation:

- 2 control wires to outdoor unit in complete Evolution system and Connex Control
- Smaller and lighter than 2-stage units
- Minimum and Maximum adjustments with Evolution® Connex™ Control
- Hybrid Heat™ dual fuel capable
- Compatible with non-communicating thermostats

#### Durability

DuraGuard™ protection package:

- Solid, Durable sheet metal construction
- Steel louver coil guard
- Baked-on, complete outer coverage, powder paint

#### Applications

- Line sets up to 100 ft (30.5 m) equivalent length
- No long-line accessories required.

## MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	14
N	N	N	A	A/N	N	N	N	N	A/N	A/N	N	A
2	8	8	B	N	V	0	3	6	0	0	0	A
Product Family 2=HP	Tier 8= Evolution Series	SEER 8 = 18 SEER	Major Series B=Puron	Voltage N= 208–230–1 or 208/230–1	Variations V = Variable Speed	Cooling Capacity			Open 0=Not Defined	Open 0=Not Defined	Open 0=Not Defined	Series A = Original Series



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).



288BNV

## STANDARD FEATURES

FEATURES	024–A	025–A	036–A	048–A
Puron Refrigerant	X	X	X	X
Variable Speed Rotary Compressor	X	X	X	X
Air–Cooled Integrated Inverter Drive	X	X	X	X
Louvered Coil Guard	X	X	X	X
Field Installed Filter Drier	X	X	X	X
Front Seating Service Valves	X	X	X	X
Internal Pressure and Temperature Protection	X	X	X	X
Suction Pressure Transducer	X	X	X	X
High Pressure Switch	X	X	X	X
Internal Crankcase Heater	X	X	X	X
Utility Interface Connections	X	X	X	X
Enhanced Diagnostics with Evolution® Connex™ Control with version 11 software or newer	X	X	X	X
Deluxe Sound Blanket	X	X	X	X
Outdoor Air Temperature Sensor	X	X	X	X

X = Standard

# REFRIGERANT PIPING LENGTH LIMITATIONS

## Maximum Line Lengths:

The maximum allowable total equivalent length for heat pumps can vary depending on the vertical separation. See the tables below for allowable lengths depending on whether the outdoor unit is on the same level, above or below the indoor unit.

### Maximum Line Lengths for Heat Pump Applications

	MAXIMUM ACTUAL LENGTH ft (m)	MAXIMUM EQUIVALENT LENGTH† ft (m)	MAXIMUM VERTICAL SEPARATION ft (m)
Units on equal level	100 (30.5)	100 (30.5)	N/A
Outdoor unit ABOVE indoor unit	100 (30.5)	100 (30.5)	100 (30.5)
Outdoor unit BELOW indoor unit	See Table 'Maximum Total Equivalent Length: Outdoor Unit BELOW Indoor Unit'		

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

### Maximum Total Equivalent Length† - Outdoor Unit BELOW Indoor Unit

Size	Liquid Line Diameter w/ TXV	HP with Puron® Refrigerant – Maximum Total Equivalent Length† Vertical Separation ft (m) Outdoor unit BELOW indoor unit;						
		0–20 (0 – 6.1)	21–30 (6.4 – 9.1)	31–40 (9.4 – 12.2)	41–50 (12.5 – 15.2)	51–60 (15.5 – 18.3)	61–70 (18.6 – 21.3)	71–80 (21.6 – 24.4)
2–Ton	3/8	100*	100*	100*	100*	100*	100*	100*
3–Ton	3/8	100*	100*	100*	100*	100*	100*	100*
4–Ton	3/8	100*	100*	100*	100*	100	100	--

\* Maximum actual length not to exceed 100 ft (30.5 m)

† Total equivalent length accounts for losses due to elbows or fitting.

-- = outside acceptable range

288BNV

## LONG LINE APPLICATIONS

Unit is approved for up to 100 ft (30.5 m) equivalent length and vertical separations shown above with no additional accessories.

Longer line set applications are not permitted.

## COOLING CAPACITY LOSS TABLE

Nominal Size (Btuh)	Line OD (in.)	288BNV Cooling Capacity Loss (%)				
		Total Equivalent Line Length (ft)				
		25	50	75	80	100
024–A	5/8	0.5	1.2	1.8	1.9	2.4
	3/4	0.1	0.4	0.6	0.7	0.8
	<b>7/8</b>	0.0	0.1	0.3	0.3	0.4
025–A	5/8	0.5	1.2	1.8	1.9	2.4
	3/4	0.1	0.4	0.6	0.7	0.8
	<b>7/8</b>	0.0	0.1	0.3	0.3	0.4
036–A	5/8	1.1	2.4	3.7	4.0	5.0
	3/4	0.3	0.8	1.3	1.4	1.8
	<b>7/8</b>	0.0	0.3	0.5	0.6	0.8
048–A	3/4	0.7	1.6	2.4	2.6	3.2
	7/8	0.3	0.7	1.1	1.2	1.6
	<b>1 1/8</b>	0.0	0.1	0.2	0.3	0.4

Rating Line Size in **Bold**

## EQUIPMENT SIZING GUIDELINES

If primary load is cooling, size the same as any other air conditioning system. If primary load is heating, use the chart below for maximum size for heating.

### MAXIMUM RECOMMENDED EQUIPMENT SIZE - HEATING

COOLING LOAD (tons)	MAXIMUM RECOMMENDED EQUIPMENT SIZE FOR HEATING*
2	36
2.5	36
3	48
3.5	60†
4	60†
5	60†

\* Make sure duct work is capable of delivering required airflow . Make sure combination rating exists for desired indoor and outdoor combination.

† 5-Ton coming Q4 2014

## MIN/MAX AIRFLOW TABLES

The indoor airflow delivered by this system varies significantly based on outdoor temperature, indoor unit combination, and system demand. The airflows on these tables are for duct design considerations. Duct systems capable of these ranges will ensure

the system will deliver full capacity at all outdoor temperatures. Minimum and maximum airflows can be adjusted from these numbers in the Evolution Control Heat Pump Setup screen.

Size	Cooling – Comfort Mode		Minimum Cooling (Dehum or Zoning)
	Max Capacity Airflow	Highest Min Capacity Airflow	
2-Ton	739	263	222
3-Ton	990	289	236
4-Ton	1389	542	457

Size	Cooling – Efficiency Mode	
	Max Capacity Airflow	Highest Min Capacity Airflow
2-Ton	825	585
3-Ton	1050	600
4-Ton	1400	875

Size	Heating – Comfort Mode	
	Max Capacity Airflow	Highest Min Capacity Airflow
2-Ton	819	270
3-Ton	1014	226
4-Ton	1550	429

Size	Heating – Efficiency Mode	
	Max Capacity Airflow	Highest Min Capacity Airflow
2-Ton	825	585
3-Ton	1200	700
4-Ton	1600	1000

#### LEGEND::

**Max Capacity Airflow** – Stage 5 airflow varies depending on conditions. This is the highest airflow the system will attempt to deliver in this particular mode. Ductwork for non-zoned systems should be sized for this airflow to ensure the system can deliver full capacity when needed. Improper duct design may result in excessive airflow noise and/or cutback occurrences at max airflow conditions.

**Highest Min. Capacity Airflow** – Stage 1 airflow also varies depending on conditions. In zoned systems, each zone must be capable of delivering this airflow for the system to deliver full capacity into the zone. Otherwise, airflow may be diverted to other zones or cutback may occur.

**Min Cooling (Dehum or Zoning)** – Lowest airflow the system will deliver. May operate down to this airflow in dehumidification mode or in zoning applications where ductwork restrictions have caused the blower to cut-back.

## PHYSICAL DATA

UNIT SIZE SERIES	024-A	025-A	036-A	048-A
Operating Weight lb (kg)	164 (74.4)	164 (74.4)	164 (74.4)	218 (99)
Shipping Weight lb (kg)	190 (86)	190 (86)	190 (86)	257 (117)
Compressor Type	Variable Speed Rotary			
REFRIGERANT	Puron® (R-410A)			
Control	TXV (Puron® Hard Shutoff)			
Charge lb (kg)	6.4 (2.91)	6.4 (2.91)	6.4 (2.91)	8.3 (3.76)
Outdoor Htg Exp. Device	EXV			
COND FAN	Forward Swept Propeller Type, Direct Drive			
Air Discharge	Vertical			
Air Qty (CFM)	2500	2500	2500	4500
Motor HP	1/3	1/3	1/3	1/3
Motor RPM	1050	1050	1050	850
COND COIL				
Face Area (Sq ft)	13.90	13.90	13.90	21.50
Fins per In.	20	20	20	20
Rows	1	1	1	1
Circuits	6	6	6	8
VALVE CONNECT. (In. ID)				
Vapor	3/4	3/4	3/4	7/8
Liquid	3/8			
REFRIGERANT TUBES (In. OD)				
Rated Vapor*	7/8	7/8	7/8	1-1/8
Max Liquid Line	3/8			

\* Units are rated with 25 ft (7.6 m) of lineset length. See Vapor Line Sizing and Cooling Capacity Loss table when using other sizes and lengths of lineset.

**Note:** See unit Installation Instruction for proper installation.

## CONTROLS

<b>SYSTXBECN01-A</b>	Evolution Connex Control (non-Wi-Fi) version 11 or newer
<b>SYSTXBEC01-A</b>	Evolution Connex Control (Wi-Fi)
<b>SYSTXBECW01-A</b>	Evolution Connex Control with Wi-Fi & Wireless Access Point
<b>SYSTXBBNIM01</b>	Evolution Network Interface Module (Connects Heat Recovery and Energy Recovery Ventilators on non-zoning applications.)
<b>SYSTXBB4ZC01</b>	Evolution 4-Zone Damper Control Module
<b>SYSTXBBSMS01-E</b>	Evolution Smart Sensor

## THERMOSTATS

PART NUMBER	PROGRAM	GAS	ELECTRIC	HEAT PUMP	HYBRID HEAT	HEAT	COOL
T6-PRH01-A	7-Day	√	√	√	√	3	2
T6-PHP01	7-Day		√	√		3	2
T6-NRH01-A	NP	√	√	√	√	3	2
T6-NHP01	NP		√	√		3	2

## ACCESSORIES

KIT NUMBER	KIT NAME	024-A	025-A	036-A	048-A
HK70EZ016	MODEL PLUG FOR FV4(A,B), FK, 40FK	X	X		
HK70EZ017	MODEL PLUG FOR FV4(A,B), FK, 40FK			X	
HK70EZ018	MODEL PLUG FOR FV4(A,B), FK, 40FK				X
KSASF0201AAA	SUPPORT FEET	X	X	X	
KSASF0101AAA	SUPPORT FEET				X
KSATX0201PUR	TXV	X	X		
KSATX0301PUR	TXV			X	
KSATX0401PUR	TXV				X
LM10KK003	VAPOR LINE MUFFLER	X	X	X	X

x = Accessory

### Accessory Description and Usage

#### Model Plug - FV4(A,B), FK, 40FK

Replaces production model plug in outdoor unit and adjusts compressor speed in heating mode to match indoor airflow.

Usage Guideline:

Required when using heat pump in replacement applications with FV4(A,B), FK4, 40FK fan coil indoor unit.

#### Support Feet

Raises unit above base pad. 2 and 3 ton kit contains 5 feet for stable installation with small base. 4 and 5 ton kit contains 4 feet.

Usage Guideline:

Recommended in cold climates where snow can accumulate around unit. Allows improved base pan drainage.

Recommended for rooftop applications.

#### 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.

Usage Guideline:

Required if indoor unit does not already contain Puron refrigerant TXV

#### Vapor Line Muffler

An external muffler installed in the vapor line to minimize vibration transmitted through refrigerant lines

Usage Guideline:

Recommended if vapor line is not installed per recommendations in the installation instructions and vibration may be transmitted into the structure.

## ELECTRICAL DATA

UNIT SIZE – VOLTAGE, SERIES	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MIN WIRE SIZE†	MIN WIRE SIZE†	MAX LENGTH ft (m)‡	MAX LENGTH ft (m)‡	MAX FUSE* * or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		60°C	75°C	60°C	75°C	
		024–A	208–230–1	253	197	N/A		17.7	1.2	23.6	12	
025–A	N/A	17.7				1.2	23.6	12	12	52 (15.9)	50 (16.2)	40
036–A	N/A	18.3				1.2	24.4	12	12	51 (15.5)	48 (14.6)	40
048–A	N/A	25.1				1.2	31.4	10	10	64 (19.5)	60 (18.3)	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 (NFPA 70). The ampacity of non–metallic–sheathed cable (NM), trade name ROMEX, shall be that of 60°C conditions, per the NEC (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 (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.

Complies with 2010 requirements of ASHRAE Standards 90.1

## CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE – VOLTAGE, SERIES	
024–A	If a Connex Control is installed, subcooling recommendation displayed in Charging Mode must be followed. If not, subcooling chart shown on the charging label must be followed
025–A	
036–A	
048–A	

## SOUND POWER LEVEL (dBA)

Unit Size – Voltage, Series	Typical Octave Band Spectrum (without tone adjustment)	Min Speed Cooling	Max Speed Cooling	Max Speed Heating
024–A	Freq (Hz)	1200 RPM	3300 RPM	4800 RPM
	125	43.0	53.0	51.5
	250	47.0	59.5	61.5
	500	51.0	62.5	62.5
	1000	49.5	63.5	63.5
	2000	42.5	63.0	61.5
	4000	35.5	63.5	62.0
	8000	46.0	54.0	54.5
	Sound Rating (dBA)	55.0	72.0	71.0
025–A	Freq (Hz)	1200 RPM	3300 RPM	4800 RPM
	125	43.0	52.0	52.5
	250	47.0	59.5	59.0
	500	51.0	64.5	61.5
	1000	49.5	63.0	62.0
	2000	42.5	60.0	60.0
	4000	35.5	59.5	64.0
	8000	46.0	50.5	54.5
	Sound Rating (dBA)	55.0	69.0	71.0
036–A	Freq (Hz)	1200 RPM	4800 RPM	5400 RPM
	125	43.0	53.0	51.5
	250	47.0	59.5	61.5
	500	51.0	62.5	62.5
	1000	49.5	63.5	63.5
	2000	42.5	63.0	61.5
	4000	35.5	63.5	62.0
	8000	46.0	54.0	54.5
	Sound Rating (dBA)	55.0	72.0	71.0
048–A	Freq (Hz)	1500 RPM	4320 RPM	5400 RPM
	125	49.5	59.0	55.5
	250	54.5	64.0	66.5
	500	54.0	66.0	65.0
	1000	54.5	64.5	63.0
	2000	52.0	63.5	66.0
	4000	54.5	63.5	67.5
	8000	46.5	53.0	58.5
	Sound Rating (dBA)	64.0	72.0	73.0

NOTE: Tested in compliance with AHRI 270–2008 but not listed with AHRI.

288BNV

# RPM-CAPACITY-SOUND (dBA)\*

288BNV

STAGE #	COMP RPM	CAPACITY %	SOUND (dBA)
<b>288BNV024</b>			
<b>COOLING</b>			
1	1200	38%	55
2	1900	58%	61
3	2400	73%	64
4	2600	79%	68
5	3300	100%	72
<b>HEATING</b>			
1	1200	25%	55
2	2400	50%	60
3	3300	69%	62
4	4200	88%	68
5	4800	100%	71
<b>288BNV025</b>			
<b>COOLING</b>			
1	1200	38%	55
2	1900	58%	60
3	2400	73%	62
4	2600	79%	66
5	3300	100%	69
<b>HEATING</b>			
1	1200	25%	55
2	2400	50%	60
3	3300	69%	62
4	4200	88%	68
5	4800	100%	71
<b>288BNV036</b>			
<b>COOLING</b>			
1	1200	25%	55
2	2400	50%	61
3	3300	69%	65
4	4200	88%	69
5	4800	100%	72
<b>HEATING</b>			
1	1200	22%	55
2	2600	48%	60
3	3400	63%	63
4	4800	89%	69
5	5400	100%	71
<b>288BNV048</b>			
<b>COOLING</b>			
1	1500	35%	64
2	2460	57%	67
3	2800	65%	68
4	3650	84%	70
5	4320	100%	72
<b>HEATING</b>			
1	1500	28%	64
2	2800	52%	67
3	3300	61%	68
4	4320	80%	71
5	5400	100%	73

\*Estimated sound for stages 2, 3, and 4

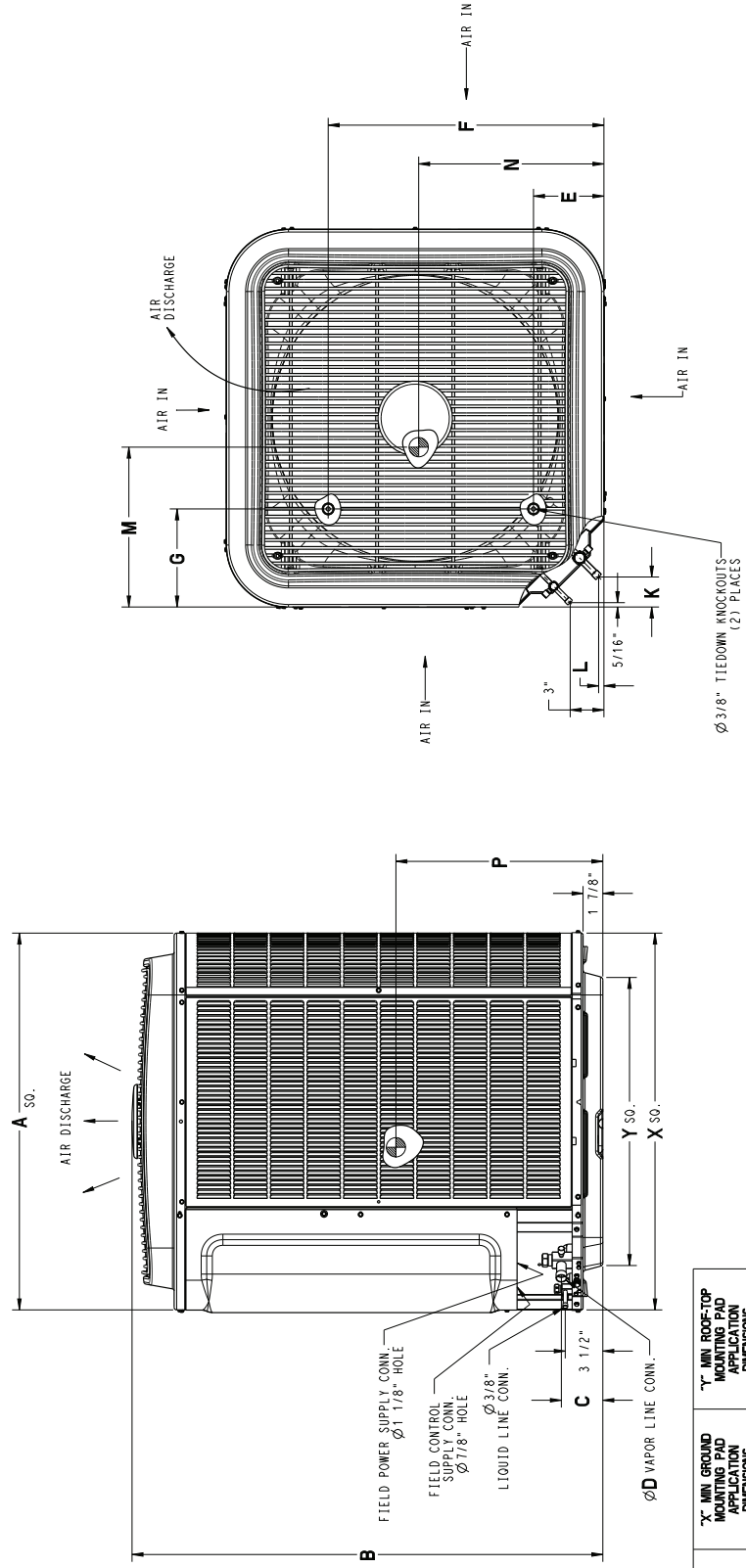


# DIMENSIONS - ENGLISH

UNIT	SERIES	ELECTRICAL CHARACTERISTICS	A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (lbs)	SHIPPING WEIGHT (lbs)	SHIPPING DIMENSIONS (L x W x H)
2888024	A	X 0 0	23 1/8"	38 1/2"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	10 3/4"	10 3/4"	18 1/4"	164	190	25 1/4" x 25 1/4" x 43 3/8"
2888025	A	X 0 0	23 1/8"	38 1/2"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	10 3/4"	10 3/4"	18 1/4"	164	190	25 1/4" x 25 1/4" x 43 3/8"
2888036	A	X 0 0	23 1/8"	38 1/2"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	10 3/4"	10 3/4"	18 1/4"	164	190	25 1/4" x 25 1/4" x 43 3/8"
2888048	A	X 0 0	31 3/16"	38 15/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	14 1/2"	14 5/8"	18 3/4"	218	257	33 3/8" x 33 3/8" x 46 1/8"

X = YES  
O = NO

208/230-160	230-160	208/230-3-60	460-3-60
-------------	---------	--------------	----------



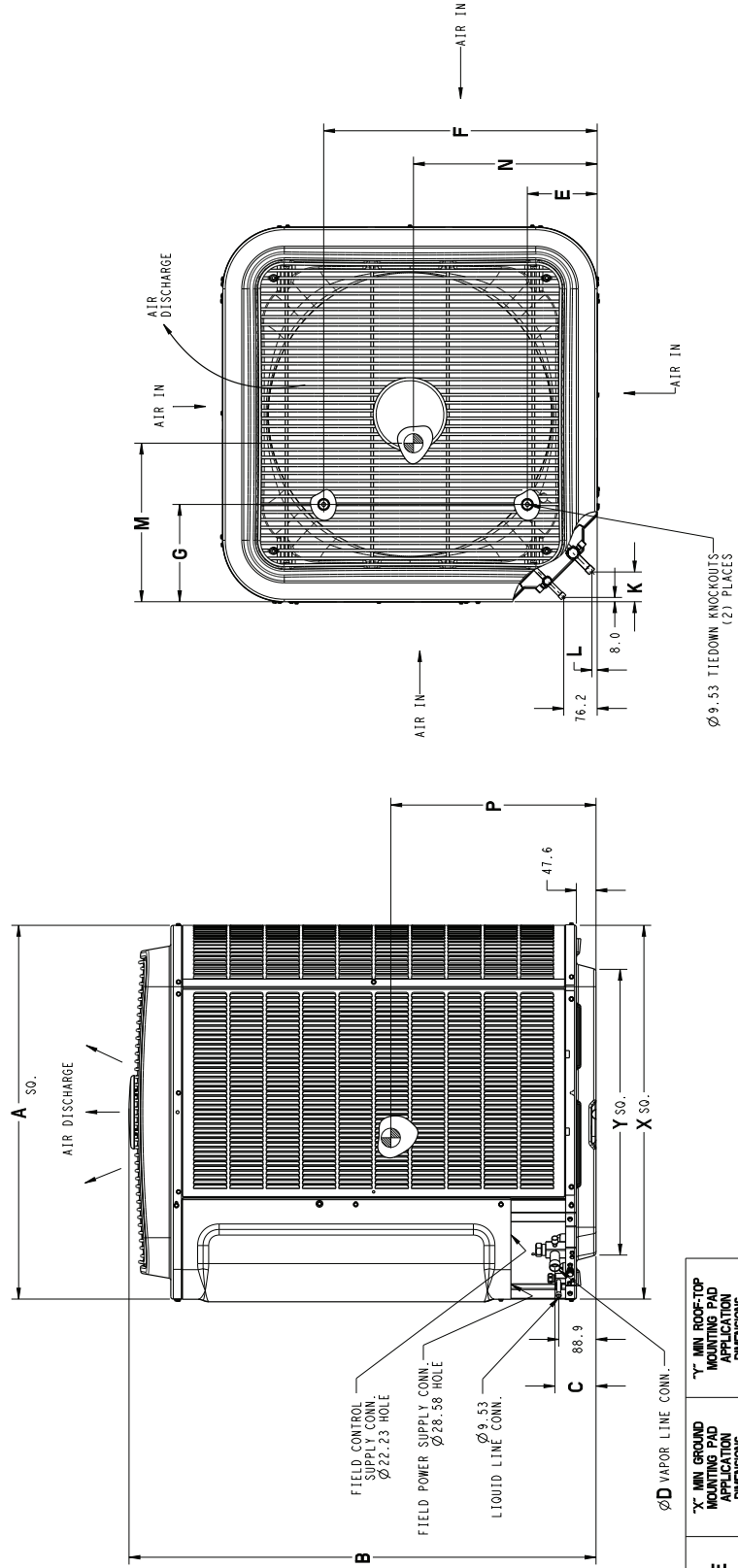
UNIT SIZE	X" MIN. GROUND MOUNTING PAD APPLICATION DIMENSIONS	Y" MIN. ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
24, 25, 36	23 1/8"	17 3/4"
48	25 3/4"	20 7/16"
-	31 3/16"	23"
-	35"	26 3/4"

**288BNV**

**DIMENSIONS - SI**

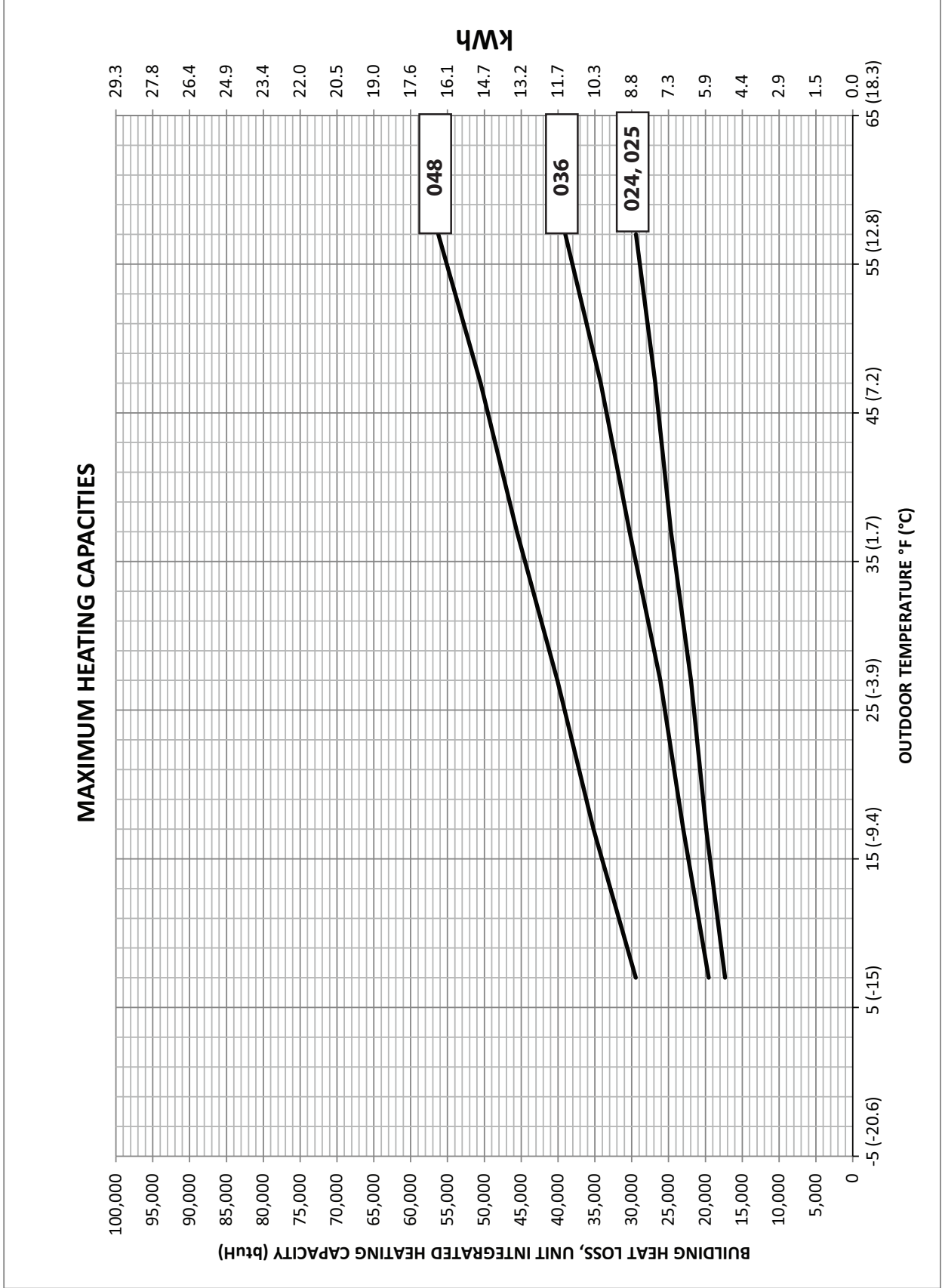
UNIT	SERIES	ELECTRICAL CHARACTERISTICS	A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (Kgs)	SHIPPING WEIGHT (Kgs)	SHIPPING DIMENSIONS (L x W x H)
2888024	A	X 0 0 0	587.3	980.1	96.1	19.1	112.7	458.8	198.4	71.4	12.7	273.1	273.1	463.6	74.4	86.2	641.5 X 641.5 X 1102.2
2888025	A	X 0 0 0	587.3	980.1	96.1	19.1	112.7	458.8	198.4	71.4	12.7	273.1	273.1	463.6	74.4	86.2	641.5 X 641.5 X 1102.2
2888036	A	X 0 0 0	587.3	980.1	96.1	19.1	112.7	458.8	198.4	71.4	12.7	273.1	273.1	463.6	74.4	86.2	641.5 X 641.5 X 1102.2
2888048	A	X 0 0 0	792.2	988.5	98.4	22.2	166.7	627.1	231.8	74.6	15.9	368.3	371.5	476.3	98.9	116.6	846.6 X 846.6 X 1172.2

2888024	460-3-60	X = YES O = NO
2888025	208/230-3-60	X = YES O = NO
2888036	230-1-60	X = YES O = NO
2888048	208/230-1-60	X = YES O = NO



UNIT SIZE	X* MIN GROUND MOUNTING PAD APPLICATION DIMENSIONS	Y* MIN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
24,25,36	587.4	451.3
48	654.0	518.5
-	792.2	583.2
-	889.0	679.7

**288BNV BALANCE POINT WORKSHEET**



**288BNV**

**TESTED AHRI COMBINATION RATINGS\***

Advance PD ratings shown below. Ratings will be available in AHRI ratings database 30 days prior to first production.

Outdoor Model	Indoor Model	Furnace Model	Cooling				Heating				
			Cooling Cap.	SEER	EER	ID CFM	HSPF	High Temp		Low Temp	
								Capacity 47°F (8°C)	COP	Capacity 17°F (-8°C)	COP
288BNV024-A	FE4AN(B,F)005L+UI		24,000	17.0	11.0	825	10.0	25,000	3.32	15,500	2.01
288BNV024-A	FV4CN(B,F)003L		23,200	15.5	11.0	700	8.0	25,000	2.97	15,500	2.00
288BNV025-A	FE4AN(B,F)005L+UI		24,000	18.0	12.5	825	10.0	26,800	3.56	19,900	2.58
288BNV025-A	FV4CN(B,F)003L		23,200	16.5	11.5	700	8.2	30,200	3.04	20,000	2.38
288BNV036-A	FE4AN(B,F)005+UI		34,200	17.5	10.5	1,050	10.5	34,200	3.56	23,000	2.58
288BNV036-A	FV4CN(B,F)005L		34,600	15.5	10.0	1,050	9.0	34,000	3.58	22,400	2.58
288BNV048-A	FE4AN(B,F)005L+UI		46,000	18.0	11.0	1,400	11.0	50,500	3.44	35,200	2.66

\* 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 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 (-8°C) db 15°F (-9°C) wb air entering outdoor unit.

**COP** — Coefficient of Performance

**EER** — Energy Efficiency Ratio

**HSPF** — Heating Seasonal Performance Factor

**SEER** — Seasonal Energy Efficiency Ratio

**UI** — User Interface

12 **NOTE:** Ratings contained in this document are subject to change at any time.

# DETAILED COOLING CAPACITIES# - EFFICIENCY MODE

EVB *F(°C)		115 (46.1)			105 (40.5)			95 (35)			85 (29.4)			75 (23.9)			65 (19.3)		
		Capacity MBtuh	Total Syst KW**	ID SCFM	Capacity MBtuh	Total Syst KW**	ID SCFM	Capacity MBtuh	Total Syst KW**	ID SCFM	Capacity MBtuh	Total Syst KW**	ID SCFM	Capacity MBtuh	Total Syst KW**	ID SCFM	Capacity MBtuh	Total Syst KW**	
<b>STAGE 5</b>																			
<b>75</b> (23.9)	72 (22.2)	23.61	9.88	3.38	25.24	10.47	2.76	26.64	10.98	2.19	28.18	11.54	1.71	29.67	12.09	1.31	31.12	12.64	0.96
	67 (19.4)	21.33	13.74	3.34	22.80	14.32	2.75	24.06	14.87	2.18	25.46	15.46	1.72	26.82	16.05	1.32	28.12	16.59	0.98
	63 (17.2)	19.66	16.76	3.31	21.01	17.35	2.73	22.17	17.92	2.18	23.46	18.51	1.73	24.71	19.11	1.33	25.92	19.72	1.00
	57 (13.9)	18.72	18.72	3.30	19.79	19.79	2.72	20.71	20.71	2.17	21.71	21.71	1.73	22.67	22.67	1.34	23.60	23.60	1.01
	80 (26.7)	23.53	13.78	3.38	25.17	14.37	2.76	26.56	14.92	2.19	28.10	15.50	1.71	29.60	16.09	1.31	31.02	16.63	0.96
<b>80</b> (26.7)	67 (19.4)	21.28	17.58	3.34	22.75	18.19	2.75	24.00	18.75	2.18	25.40	19.35	1.72	26.74	19.96	1.32	28.05	20.56	0.98
	63 (17.2)	20.03	20.03	3.32	21.17	21.09	2.74	22.29	21.72	2.18	23.54	22.94	1.73	24.78	22.95	1.33	25.96	23.61	1.00
	57 (13.9)	19.99	19.99	3.32	21.10	21.10	2.73	22.06	22.06	2.18	23.08	23.08	1.73	24.09	24.09	1.33	25.06	25.06	1.00
	72 (22.2)	15.43	6.56	1.86	16.55	6.96	1.57	17.40	7.27	1.23	18.52	7.59	0.99	19.58	8.06	0.78	20.65	8.45	0.60
	75 (23.9)	13.88	9.30	1.86	14.90	9.71	1.58	15.70	10.04	1.24	16.69	10.46	1.01	17.67	10.87	0.81	18.63	11.27	0.63
<b>80</b> (26.7)	67 (19.4)	12.80	11.44	1.85	13.73	11.87	1.59	14.47	12.22	1.24	15.39	12.85	1.02	16.27	13.10	0.83	17.17	13.48	0.65
	63 (17.2)	12.38	12.38	1.85	13.13	13.13	1.59	13.73	13.73	1.25	14.44	14.44	1.03	15.14	15.14	0.84	15.81	15.81	0.67
	57 (13.9)	15.37	9.34	1.86	16.49	9.75	1.57	17.33	10.09	1.23	18.42	10.48	0.99	19.51	10.89	0.78	20.58	11.27	0.60
	72 (22.2)	13.87	12.03	1.86	14.88	12.46	1.58	15.67	12.80	1.24	16.66	13.25	1.01	17.62	13.69	0.81	18.59	14.08	0.63
	75 (23.9)	13.28	13.28	1.86	14.07	14.07	1.59	14.69	14.69	1.24	15.58	15.21	1.02	16.44	15.74	0.83	17.23	16.25	0.65
<b>80</b> (26.7)	67 (19.4)	13.26	13.26	1.86	14.04	14.04	1.59	14.66	14.66	1.24	15.42	15.42	1.02	16.14	16.14	0.83	16.85	16.85	0.66
	72 (22.2)							10.38	4.52	0.57	11.19	4.70	0.49	11.92	5.07	0.40	12.67	5.34	0.30
	67 (19.4)							9.32	6.60	0.59	10.00	6.88	0.52	10.68	7.16	0.44	11.35	7.44	0.35
	63 (17.2)							8.58	8.20	0.60	9.20	8.49	0.54	9.81	8.79	0.47	10.41	9.08	0.38
	57 (13.9)							8.47	8.47	0.60	8.98	8.98	0.54	9.48	9.48	0.48	9.96	9.96	0.40
<b>80</b> (26.7)	72 (22.2)							10.33	6.64	0.57	11.10	6.91	0.49	11.86	7.20	0.40	12.62	7.48	0.30
	67 (19.4)							9.33	8.66	0.58	10.00	8.96	0.52	10.67	9.26	0.44	11.33	9.56	0.35
	63 (17.2)							9.12	9.12	0.59	9.67	9.67	0.52	10.20	10.20	0.45	10.72	10.72	0.37
	57 (13.9)							9.11	9.11	0.59	9.65	9.65	0.52	10.18	10.18	0.45	10.69	10.69	0.37
	80 (26.7)																		

See notes on page 28



288BNV

DETAILED COOLING CAPACITIES# - EFFICIENCY MODE CONTINUED

288BNV024

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*FE4AN(B,F)005L	1.00	1.00	
FE4AN(B,F)003L	1.01	1.06	
FE4ANF002L	1.01	1.06	
CAP**3614AL*	1.01	1.06	315(A,J)AV036070
CSPH*3612AL*	1.03	1.13	315(A,J)AV036070
CSPH*4212AL*	1.03	1.13	315(A,J)AV036070
CAP**3617AL*	1.01	1.06	315(A,J)AV048090
CNPV*3617AL*	1.01	1.06	315(A,J)AV048090
CNPV*4217AL*	1.03	1.07	315(A,J)AV048090
CSPH*3612AL*	1.03	1.13	315(A,J)AV048090
CSPH*4212AL*	1.03	1.14	315(A,J)AV048090
CAP**3617AL*	1.00	1.05	98(6*B,7*A)42060V17
CNPV*3617AL*	1.00	1.05	98(6*B,7*A)42060V17
CNPV*4217AL*	1.02	1.07	98(6*B,7*A)42060V17
CSPH*3612AL*	1.02	1.12	98(6*B,7*A)42060V17
CSPH*4212AL*	1.03	1.13	98(6*B,7*A)42060V17
CAP**3617AL*	1.01	1.06	98(6*B,7*A)42080V17
CNPV*3617AL*	1.00	1.05	98(6*B,7*A)42080V17
CNPV*4217AL*	1.02	1.07	98(6*B,7*A)42080V17
CSPH*3612AL*	1.02	1.12	98(6*B,7*A)42080V17
CSPH*4212AL*	1.03	1.13	98(6*B,7*A)42080V17
CAP**3621AL*	1.01	1.06	98(6*B,7MA)60060V21
CNPV*3621AL*	1.00	1.05	98(6*B,7MA)60060V21
CNPV*4221AL*	1.01	1.06	98(6*B,7MA)60060V21
CSPH*3612AL*	1.02	1.12	98(6*B,7MA)60060V21
CSPH*4212AL*	1.03	1.13	98(6*B,7MA)60060V21

2-STAGE (Hi-Stage 5, Lo-Stage 2)						
Cooling Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model	
FV4CN(F)003	0.93	1.06	0.97	1.03		
FV4CN(F)002L	0.92	1.09	0.98	1.05		
CAP**2414AL*	0.93	1.11	0.98	1.09	313*AV024045	
CAP**3014AL*	0.95	1.08	0.98	1.09	313*AV024045	
CAP**3614AL*	0.95	1.08	0.98	1.08	313*AV024045	
CSPH*2412AL*	0.93	1.11	0.98	1.08	313*AV024045	
CSPH*3012AL*	0.95	1.08	0.99	1.08	313*AV024045	
CSPH*3612AL*	0.97	1.10	0.99	1.07	313*AV024045	
CAP**2414AL*	0.93	1.08	0.96	1.10	922*A30040E14	
CAP**3014AL*	0.94	1.12	0.96	1.09	922*A30040E14	
CAP**3614AL*	0.94	1.12	0.96	1.09	922*A30040E14	
CNPV*3014AL*	0.95	1.13	0.96	1.09	922*A30040E14	
CSPH*2412AL*	0.93	1.11	0.96	1.09	922*A30040E14	
CSPH*3012AL*	0.95	1.13	0.98	1.08	922*A30040E14	
CSPH*3612AL*	0.97	1.10	0.98	1.08	922*A30040E14	
CAP**2417AL*	0.93	1.11	0.96	1.09	922*A36040E17	
CAP**3017AL*	0.94	1.12	0.96	1.09	922*A36040E17	
CAP**3617AL*	0.95	1.13	0.97	1.09	922*A36040E17	
CNPV*3017AL*	0.94	1.12	0.96	1.09	922*A36040E17	
CNPV*3617AL*	0.94	1.12	0.96	1.09	922*A36040E17	
CNPV*4217AL*	0.96	1.09	0.97	1.08	922*A36040E17	
CSPH*2412AL*	0.93	1.11	0.96	1.10	922*A36040E17	
CSPH*3012AL*	0.94	1.12	0.97	1.08	922*A36040E17	
CSPH*3612AL*	0.96	1.09	0.98	1.08	922*A36040E17	
CAP**2414AL*	0.93	1.06	0.98	1.07	922*A36060E14	
CAP**3014AL*	0.96	1.09	0.99	1.05	922*A36060E14	
CAP**3614AL*	0.96	1.09	0.99	1.06	922*A36060E14	
CNPV*3014AL*	0.97	1.15	0.98	1.07	922*A36060E14	
CSPH*2412AL*	0.93	1.06	0.98	1.07	922*A36060E14	
CSPH*3012AL*	0.96	1.09	0.99	1.05	922*A36060E14	
CSPH*3612AL*	0.97	1.10	1.00	1.05	922*A36060E14	
CAP**2414AL*	0.93	1.11	0.96	1.13	925*A30040E14	
CAP**3014AL*	0.94	1.12	0.96	1.12	925*A30040E14	
CAP**3614AL*	0.95	1.13	0.96	1.11	925*A30040E14	
CNPV*3014AL*	0.94	1.12	0.96	1.13	925*A30040E14	
CSPH*2412AL*	0.93	1.11	0.96	1.12	925*A30040E14	
CSPH*3012AL*	0.93	1.11	0.96	1.12	925*A30040E14	
CSPH*3612AL*	0.95	1.13	0.97	1.11	925*A30040E14	
CAP**2417AL*	0.93	1.10	0.96	1.11	925*A36040E17	
CAP**3017AL*	0.93	1.11	0.96	1.10	925*A36040E17	
CAP**3617AL*	0.94	1.12	0.96	1.09	925*A36040E17	
CNPV*3017AL*	0.93	1.11	0.96	1.10	925*A36040E17	
CNPV*3617AL*	0.93	1.11	0.96	1.10	925*A36040E17	
CNPV*4217AL*	0.93	1.11	0.97	1.09	925*A36040E17	
CSPH*2412AL*	0.93	1.10	0.96	1.11	925*A36040E17	
CSPH*3012AL*	0.93	1.11	0.97	1.09	925*A36040E17	
CSPH*3612AL*	0.95	1.08	0.97	1.09	925*A36040E17	

See notes on page 28

# DETAILED COOLING CAPACITIES# - EFFICIENCY MODE CONTINUED

EDB *F(°C)	EVAP AIR	288BNV025 / FE4ANF005 EFFICIENCY MODE CONDENSER ENTERING AIR TEMPERATURES °F																		
		105 (40.5)			95 (35)			85 (29.4)			75 (23.9)			65 (18.3)						
		ID SCFM	Capacity MBtuh	Total Sys KW**	ID SCFM	Capacity MBtuh	Total Sys KW**	ID SCFM	Capacity MBtuh	Total Sys KW**	ID SCFM	Capacity MBtuh	Total Sys KW**	ID SCFM	Capacity MBtuh	Total Sys KW**				
<b>75</b> (23.9)	72 (22.2)	825	23.61	9.88	2.53	25.24	10.47	2.23	26.64	10.98	1.92	28.18	11.54	1.66	29.67	12.09	1.41	31.12	12.64	1.18
	67 (19.4)		21.33	13.74	2.50	22.80	14.32	2.22	24.06	14.87	1.92	25.46	15.46	1.67	26.82	16.05	1.43	28.12	16.59	1.21
	63 (17.2)		19.66	16.76	2.48	21.01	17.92	2.21	22.17	17.92	1.92	23.46	18.51	1.67	24.71	19.11	1.44	25.92	19.72	1.23
	57 (13.9)		18.72	18.72	2.47	19.79	19.79	2.20	20.71	20.71	1.91	21.71	21.71	1.67	22.67	22.67	1.45	23.60	23.60	1.24
	(22.2)		23.53	13.78	2.53	25.17	14.37	2.23	26.56	14.92	1.92	28.10	15.50	1.66	29.60	16.09	1.41	31.02	16.63	1.18
<b>80</b> (26.7)	72 (22.2)	825	21.28	17.58	2.50	22.75	18.19	2.22	24.00	18.75	1.92	25.40	19.35	1.67	26.74	19.96	1.43	28.05	20.56	1.21
	67 (19.4)		20.03	20.03	2.49	21.17	21.09	2.21	22.29	21.72	1.92	23.54	22.34	1.67	24.78	22.95	1.44	25.96	23.61	1.23
	63 (17.2)		19.99	19.99	2.49	21.10	21.10	2.21	22.06	22.06	1.91	23.08	23.08	1.67	24.09	24.09	1.44	25.06	25.06	1.23
	57 (13.9)		15.43	6.56	1.50	16.55	6.96	1.36	17.40	7.27	1.13	18.52	7.59	0.97	19.58	8.06	0.82	20.65	8.45	0.67
	(22.2)		13.88	9.30	1.50	14.90	9.71	1.36	15.70	10.04	1.14	16.69	10.46	0.99	17.67	10.87	0.85	18.63	11.27	0.71
<b>75</b> (23.9)	72 (22.2)	650	12.80	11.44	1.50	13.73	11.87	1.37	14.47	12.22	1.14	15.39	12.65	1.00	16.27	13.10	0.87	17.17	13.48	0.73
	67 (19.4)		12.38	12.98	1.50	13.13	13.13	1.37	13.73	13.73	1.14	14.44	14.44	1.01	15.14	15.14	0.88	15.81	15.81	0.76
	63 (17.2)		15.37	9.34	1.50	16.49	9.75	1.36	17.33	10.09	1.13	18.42	10.48	0.97	19.51	10.89	0.82	20.58	11.27	0.67
	57 (13.9)		13.87	12.03	1.50	14.88	12.46	1.36	15.67	12.80	1.14	16.66	13.25	0.99	17.62	13.69	0.85	18.59	14.08	0.71
	(22.2)		13.28	13.28	1.50	14.07	14.07	1.37	14.69	14.69	1.14	15.58	15.21	1.00	16.44	15.74	0.87	17.23	16.25	0.73
<b>75</b> (23.9)	72 (22.2)	N/A	13.26	13.26	1.50	14.04	14.04	1.37	14.66	14.66	1.14	15.42	15.42	1.00	16.14	16.14	0.87	16.85	16.85	0.74
	67 (19.4)		10.38	4.52	0.57	10.38	4.52	0.57	10.38	4.52	0.57	11.19	4.70	0.49	11.92	5.07	0.40	12.67	5.34	0.30
	63 (17.2)		9.32	6.80	0.59	9.32	6.80	0.59	9.32	6.80	0.52	10.00	6.88	0.52	10.68	7.16	0.44	11.35	7.44	0.35
	57 (13.9)		8.58	8.20	0.60	8.58	8.20	0.60	8.58	8.20	0.54	9.20	8.49	0.54	9.81	8.79	0.47	10.41	9.08	0.38
	(22.2)		8.47	8.47	0.60	8.47	8.47	0.60	8.47	8.47	0.54	8.98	8.98	0.54	9.48	9.48	0.48	9.96	9.96	0.40
<b>80</b> (26.7)	72 (22.2)	N/A	10.33	6.64	0.57	10.33	6.64	0.57	10.33	6.64	0.57	11.10	6.91	0.49	11.86	7.20	0.40	12.62	7.48	0.30
	67 (19.4)		9.33	8.66	0.58	9.33	8.66	0.58	9.33	8.66	0.52	10.00	8.96	0.52	10.67	9.26	0.44	11.33	9.56	0.35
	63 (17.2)		9.12	9.12	0.59	9.12	9.12	0.59	9.12	9.12	0.52	9.67	9.67	0.52	10.20	10.20	0.45	10.72	10.72	0.37
	57 (13.9)		9.11	9.11	0.59	9.11	9.11	0.59	9.11	9.11	0.52	9.65	9.65	0.52	10.18	10.18	0.45	10.69	10.69	0.37
	(22.2)		9.11	9.11	0.59	9.11	9.11	0.59	9.11	9.11	0.52	9.65	9.65	0.52	10.18	10.18	0.45	10.69	10.69	0.37

See notes on page 28

DETAILED COOLING CAPACITIES# - EFFICIENCY MODE CONTINUED

288BNV025

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*FE4ANI(B/F)005L	1.00	1.00	
FE4ANI(B/F)003	1.01	1.05	
FE4ANF002L	1.01	1.10	
CAP**3614AL*	1.01	1.05	315(A,J)AV036070
CSPH*3612AL*	1.03	1.11	315(A,J)AV036070
CSPH*4212AL*	1.03	1.11	315(A,J)AV036070
CAP**3617AL*	1.01	1.05	315(A,J)AV048090
CNPV*3617AL*	1.01	1.05	315(A,J)AV048090
CSPH*3612AL*	1.03	1.11	315(A,J)AV048090
CSPH*4212AL*	1.03	1.12	315(A,J)AV048090
CAP**3617AL*	1.00	1.09	98(6*B,7*A)42060V17
CNPV*3617AL*	1.00	1.09	98(6*B,7*A)42060V17
CSPH*3612AL*	1.02	1.11	98(6*B,7*A)42060V17
CSPH*4212AL*	1.02	1.16	98(6*B,7*A)42060V17
CAP**3617AL*	1.03	1.11	98(6*B,7*A)42060V17
CNPV*3617AL*	1.01	1.05	98(6*B,7*A)42080V17
CSPH*3612AL*	1.00	1.09	98(6*B,7*A)42080V17
CSPH*4212AL*	1.02	1.11	98(6*B,7*A)42080V17
CAP**3621AL*	1.03	1.11	98(6*B,7*A)42080V17
CNPV*3621AL*	1.01	1.05	98(6*B,7*MA)60060V21
CSPH*3612AL*	1.00	1.05	98(6*B,7*MA)60060V21
CSPH*4212AL*	1.02	1.11	98(6*B,7*MA)60060V21
CSPH*4212AL*	1.03	1.11	98(6*B,7*MA)60060V21

2-STAGE (Hi-Stage 5, Lo-Stage 2)						
Cooling Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model	
FV4CN(B/F)003	0.94	0.98	0.97	1.00		
FV4CNF002L	0.94	0.98	0.98	1.02		
CAP**2414AL*	0.94	1.03	0.98	1.10	313*AV024045	
CAP**3014AL*	0.95	0.99	0.98	1.09	313*AV024045	
CAP**3614AL*	0.96	1.00	0.98	1.09	313*AV024045	
CSPH*2412AL*	0.95	1.08	0.98	1.10	313*AV024045	
CSPH*3012AL*	0.96	1.04	0.99	1.08	313*AV024045	
CSPH*3612AL*	0.98	1.02	0.99	1.08	313*AV024045	
CAP**2414AL*	0.93	1.02	0.96	1.11	922*A30040E14	
CAP**3014AL*	0.94	1.03	0.96	1.10	922*A30040E14	
CAP**3614AL*	0.95	1.03	0.97	1.10	922*A30040E14	
CNPV*3014AL*	0.96	1.04	0.96	1.10	922*A30040E14	
CSPH*2412AL*	0.94	1.03	0.97	1.11	922*A30040E14	
CSPH*3012AL*	0.95	1.03	0.98	1.09	922*A30040E14	
CSPH*3612AL*	0.97	1.05	0.98	1.08	922*A30040E14	
CAP**2417AL*	0.93	1.02	0.97	1.11	922*A36040E17	
CAP**3017AL*	0.95	1.03	0.97	1.10	922*A36040E17	
CAP**3617AL*	0.95	0.99	0.97	1.09	922*A36040E17	
CNPV*3017AL*	0.94	1.03	0.96	1.11	922*A36040E17	
CNPV*3617AL*	0.94	1.03	0.98	1.10	922*A36040E17	
CNPV*4217AL*	0.96	1.00	0.98	1.09	922*A36040E17	
CSPH*2412AL*	0.94	1.07	0.96	1.11	922*A36040E17	
CSPH*3012AL*	0.95	1.03	0.98	1.10	922*A36040E17	
CSPH*3612AL*	0.97	1.05	0.99	1.08	922*A36040E17	
CAP**2414AL*	0.95	0.99	0.99	1.08	922*A36060E14	
CAP**3014AL*	0.96	1.00	0.99	1.08	922*A36060E14	
CAP**3614AL*	0.97	1.01	0.99	1.08	922*A36060E14	
CNPV*3014AL*	0.98	1.06	0.99	1.08	922*A36060E14	
CNPV*2412AL*	0.95	1.03	0.99	1.08	922*A36060E14	
CSPH*2412AL*	0.97	1.05	1.00	1.07	922*A36060E14	
CSPH*3612AL*	0.98	1.02	1.01	1.06	922*A36060E14	
CAP**2414AL*	0.93	1.06	0.96	1.14	925*A30040E14	
CAP**3014AL*	0.95	1.08	0.96	1.13	925*A30040E14	
CAP**3614AL*	0.95	1.08	0.96	1.13	925*A30040E14	
CNPV*3014AL*	0.94	1.07	0.96	1.13	925*A30040E14	
CSPH*2412AL*	0.94	1.12	0.96	1.14	925*A30040E14	
CSPH*3012AL*	0.95	1.08	0.97	1.12	925*A30040E14	
CSPH*3612AL*	0.97	1.10	0.98	1.12	925*A30040E14	
CAP**2417AL*	0.93	1.01	0.96	1.12	925*A36040E17	
CAP**3017AL*	0.94	1.03	0.96	1.11	925*A36040E17	
CAP**3617AL*	0.94	1.03	0.97	1.11	925*A36040E17	
CNPV*3017AL*	0.93	1.02	0.96	1.12	925*A36040E17	
CNPV*3617AL*	0.93	1.02	0.96	1.12	925*A36040E17	
CNPV*4217AL*	0.95	1.03	0.98	1.11	925*A36040E17	
CSPH*2412AL*	0.93	1.06	0.96	1.12	925*A36040E17	
CSPH*3012AL*	0.94	1.03	0.98	1.11	925*A36040E17	
CSPH*3612AL*	0.94	1.03	0.98	1.10	925*A36040E17	

See notes on page 28



# DETAILED COOLING CAPACITIES# - EFFICIENCY MODE CONTINUED

288BNV036 / FE4NF005 EFFICIENCY MODE CONDENSER ENTERING AIR TEMPERATURES °F

EDB °F (°C)	EWB °F (°C)	115 (46.1)				105 (40.5)				95 (35)				85 (29.4)				75 (23.9)				65 (19.3)			
		Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**
		Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†		
<b>STAGE 5</b>																									
	72 (22.2)		33.66	13.76	3.92		35.83	14.56	3.62		37.64	15.24	3.33		39.71	16.02	3.03		41.70	16.78	2.74		43.66	17.54	2.45
	67 (19.4)		30.67	18.58	3.83		32.63	19.41	3.55		34.28	20.14	3.26		36.14	20.93	2.98		37.96	21.76	2.70		39.71	22.50	2.42
<b>75</b> <b>(23.9)</b>	63 (17.2)	1050	28.43	22.97	3.76	1050	30.25	23.22	3.49	1050	31.80	23.97	3.20	1050	33.50	24.78	2.93	1050	35.17	25.58	2.67	1050	36.77	26.96	2.41
	57 (13.9)		26.29	26.29	3.70		27.87	27.67	3.42		28.85	28.85	3.14		30.12	30.12	2.88		31.51	31.06	2.63		32.87	31.93	2.38
	72 (22.2)		33.58	18.53	3.92		35.75	19.37	3.62		37.55	20.09	3.33		39.61	20.91	3.03		41.61	21.68	2.74		43.56	22.44	2.45
	67 (19.4)		30.58	23.31	3.83		32.54	24.17	3.55		34.20	24.92	3.26		36.06	25.73	2.98		37.87	26.55	2.70		39.64	27.95	2.42
<b>80</b> <b>(26.7)</b>	63 (17.2)	1050	28.45	27.05	3.77	1050	30.25	27.93	3.49	1050	31.78	28.71	3.20	1050	33.48	29.54	2.93	1050	35.15	30.40	2.67	1050	36.73	31.18	2.41
	57 (13.9)		27.92	27.92	3.75		29.37	29.37	3.47		30.60	30.60	3.18		31.93	31.93	2.91		33.21	33.21	2.65		34.45	34.45	2.39
<b>STAGE 3</b>																									
	72 (22.2)		21.50	9.09	2.51		22.99	9.62	2.19		24.00	9.99	1.85		25.46	10.52	1.58		26.89	11.04	1.32		28.22	11.54	1.09
	67 (19.4)		19.38	12.78	2.49		20.72	13.34	2.18		21.71	13.77	1.84		23.03	14.33	1.57		24.32	14.88	1.33		25.58	15.44	1.11
<b>75</b> <b>(23.9)</b>	63 (17.2)	900	17.85	15.69	2.47	900	19.07	16.26	2.18	900	20.03	16.73	1.83	900	21.24	17.32	1.57	900	22.42	17.89	1.34	900	23.59	18.46	1.12
	57 (13.9)		17.16	17.16	2.47		18.15	18.15	2.17		18.94	18.94	1.82		19.90	19.90	1.57		20.84	20.84	1.34		21.76	21.76	1.13
	72 (22.2)		21.43	12.83	2.51		22.91	13.39	2.19		23.93	13.80	1.85		25.39	14.36	1.58		26.81	14.92	1.32		28.20	15.48	1.09
	67 (19.4)		19.34	16.49	2.49		20.87	17.07	2.18		21.66	17.54	1.84		22.97	18.13	1.57		24.25	18.71	1.33		25.52	19.29	1.11
<b>80</b> <b>(26.7)</b>	63 (17.2)	900	18.40	18.40	2.48	900	19.44	19.44	2.18	900	20.23	20.23	1.83	900	21.35	21.04	1.57	900	22.50	21.67	1.34	900	23.66	22.27	1.12
	57 (13.9)		18.36	18.36	2.48		19.40	19.40	2.18		20.20	20.20	1.83		21.20	21.20	1.57		22.18	22.18	1.34		23.13	23.13	1.12
<b>STAGE 1</b>																									
	72 (22.2)										10.69	4.69	0.66		11.51	4.98	0.49		12.34	5.28	0.34		13.17	5.58	0.22
	67 (19.4)										9.54	6.85	0.69		10.28	7.17	0.52		11.02	7.49	0.37		11.76	7.81	0.25
<b>75</b> <b>(23.9)</b>	63 (17.2)	N/A				N/A				600	8.78	8.53	0.70	600	9.43	8.87	0.54	600	10.10	9.21	0.39	600	10.77	9.55	0.27
	57 (13.9)										8.69	8.69	0.71		9.25	9.25	0.54		9.81	9.81	0.40		10.36	10.36	0.28
	72 (22.2)										10.64	6.90	0.71		11.46	7.22	0.54		12.29	7.55	0.40		13.12	7.88	0.28
	67 (19.4)										9.56	9.02	0.71		10.28	9.37	0.54		11.01	9.72	0.40		11.75	10.07	0.28
<b>80</b> <b>(26.7)</b>	63 (17.2)	N/A				N/A				600	9.40	9.40	0.69	600	9.99	9.99	0.52	600	10.58	10.58	0.38	600	11.17	11.17	0.26
	57 (13.9)										9.38	9.38	0.69		9.97	9.97	0.52		10.56	10.56	0.38		11.15	11.15	0.26

See notes on page 28



# DETAILED COOLING CAPACITIES# - EFFICIENCY MODE CONTINUED

288BNV048 / FE4ANF005 EFFICIENCY MODE CONDENSER ENTERING AIR TEMPERATURES ° F (° C)

EDB -F (°C)	EVB AIR	115 (46.1)				105 (40.5)				95 (35)				85 (29.4)				75 (23.9)				65 (18.3)			
		Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	
		Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†		Total
<b>STAGE 5</b>																									
<b>75</b> (23.9)	72 (22.2)	44.46	17.98	5.29	4.75	50.61	20.31	4.25	1400	53.63	21.46	3.77	1400	56.55	22.58	3.32	1400	59.45	23.71	2.89	1400	59.45	23.71	2.89	
	67 (19.4)	40.51	24.29	5.18	4.67	46.10	26.82	4.18	1400	48.80	28.08	3.72	1400	51.46	29.27	3.28	1400	54.06	30.48	2.88	1400	54.06	30.48	2.88	
	63 (17.2)	37.58	29.27	5.10	4.60	42.74	31.92	4.13	1400	45.26	33.26	3.68	1400	47.68	34.49	3.26	1400	50.09	35.76	2.87	1400	50.09	35.76	2.87	
	57 (13.9)	34.67	34.67	5.01	4.51	38.71	38.71	4.05	1400	40.71	40.53	3.62	1400	42.85	41.96	3.22	1400	44.89	43.41	2.85	1400	44.89	43.41	2.85	
	72 (22.2)	44.37	24.23	5.29	4.76	50.52	26.74	4.25	1400	53.52	27.99	3.77	1400	56.44	29.20	3.32	1400	59.32	30.45	2.89	1400	59.32	30.45	2.89	
<b>80</b> (26.7)	67 (19.4)	40.41	30.49	5.19	4.67	46.00	33.19	4.18	1400	48.71	34.56	3.72	1400	51.36	35.80	3.28	1400	53.96	37.10	2.88	1400	53.96	37.10	2.88	
	63 (17.2)	37.61	35.36	5.10	4.60	42.72	38.22	4.13	1400	45.23	39.65	3.68	1400	47.66	41.04	3.26	1400	50.03	42.34	2.87	1400	50.03	42.34	2.87	
	57 (13.9)	36.76	36.76	5.08	4.57	41.00	41.00	4.10	1400	43.02	43.02	3.65	1400	44.98	44.98	3.24	1400	46.89	46.89	2.86	1400	46.89	46.89	2.86	
	72 (22.2)	29.28	12.28	3.11	2.77	33.57	13.87	2.39	1200	35.71	14.67	2.09	1200	37.84	15.47	1.80	1200	39.95	16.27	1.53	1200	39.95	16.27	1.53	
	67 (19.4)	26.56	17.46	3.09	2.77	30.46	19.24	2.40	1200	32.40	20.13	2.10	1200	34.32	21.01	1.83	1200	36.23	21.91	1.57	1200	36.23	21.91	1.57	
<b>80</b> (26.7)	63 (17.2)	24.54	21.51	3.08	2.77	28.13	23.44	2.40	1200	29.90	24.39	2.12	1200	31.67	25.35	1.85	1200	33.42	26.31	1.60	1200	33.42	26.31	1.60	
	57 (13.9)	23.57	23.57	3.07	2.76	26.55	26.55	2.40	1200	28.01	28.01	2.12	1200	29.44	29.44	1.87	1200	30.86	30.86	1.63	1200	30.86	30.86	1.63	
	72 (22.2)	29.19	17.46	3.11	2.77	33.48	19.23	2.39	1200	35.62	20.13	2.09	1200	37.74	21.03	1.80	1200	39.85	21.92	1.53	1200	39.85	21.92	1.53	
	67 (19.4)	26.49	22.57	3.10	2.77	30.38	24.55	2.40	1200	32.31	25.53	2.10	1200	34.22	26.51	1.83	1200	36.13	27.49	1.57	1200	36.13	27.49	1.57	
	63 (17.2)	25.22	25.22	3.09	2.77	28.37	28.37	2.40	1200	30.06	29.61	2.11	1200	31.78	30.71	1.85	1200	33.51	31.77	1.60	1200	33.51	31.77	1.60	
<b>75</b> (23.9)	57 (13.9)	25.18	25.18	3.09	2.77	26.79	26.79	2.40	1200	29.85	29.85	2.12	1200	31.36	31.36	1.85	1200	32.85	32.85	1.61	1200	32.85	32.85	1.61	
	72 (22.2)					19.56	8.44	1.06	875	20.97	8.97	0.88	875	22.38	9.48	0.71	875	23.80	10.01	0.55	875	23.80	10.01	0.55	
	67 (19.4)					17.67	12.15	1.09	875	18.94	12.76	0.92	875	20.22	13.37	0.76	875	21.49	14.00	0.61	875	21.49	14.00	0.61	
	63 (17.2)					16.37	15.07	1.11	875	17.53	15.75	0.95	875	18.69	16.44	0.80	875	19.86	17.13	0.65	875	19.86	17.13	0.65	
	57 (13.9)					15.99	15.99	1.12	875	17.01	17.01	0.96	875	18.01	18.01	0.81	875	19.01	19.01	0.67	875	19.01	19.01	0.67	
<b>80</b> (26.7)	72 (22.2)					19.48	12.19	1.06	875	20.89	12.79	0.88	875	22.30	13.40	0.71	875	23.71	14.04	0.55	875	23.71	14.04	0.55	
	67 (19.4)					17.67	15.85	1.09	875	18.93	16.55	0.92	875	20.19	17.26	0.76	875	21.46	17.97	0.61	875	21.46	17.97	0.61	
	63 (17.2)					17.13	17.13	1.10	875	18.20	18.20	0.94	875	19.26	19.26	0.78	875	20.32	20.32	0.64	875	20.32	20.32	0.64	
	57 (13.9)					17.10	17.10	1.10	875	18.17	18.17	0.94	875	19.23	19.23	0.78	875	20.29	20.29	0.64	875	20.29	20.29	0.64	
	72 (22.2)					17.10	17.10	1.10	875	18.17	18.17	0.94	875	19.23	19.23	0.78	875	20.29	20.29	0.64	875	20.29	20.29	0.64	

See notes on page 28



288BNV

DETAILED COOLING CAPACITIES# - EFFICIENCY MODE CONTINUED

288BNV048

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*FE4AN(BF)005L	1.00	1.00	
FE4ANR006	1.01	1.01	
CAP**4817AL*	0.98	1.08	315(A,J)AV048090
CSPH*4812AL*	0.99	1.15	315(A,J)AV048090
CSPH*6012AL*	1.00	1.10	315(A,J)AV048090
CAP**4821AL*	0.98	1.02	315(A,J)AV060110
CAP**6021AL*	1.00	1.05	315(A,J)AV060110
CNPV*4821AL*	0.98	1.02	315(A,J)AV060110
CNPV*6021AL*	0.99	1.09	315(A,J)AV060110
CSPH*4812AL*	1.00	1.10	315(A,J)AV060110
CSPH*6012AL*	0.98	1.02	315(A,J)AV066135
CAP**6024AL*	1.00	1.05	315(A,J)AV066135
CNPV*4824AL*	0.98	1.02	315(A,J)AV066135
CNPV*6024AL*	1.00	1.00	315(A,J)AV066135
CSPH*4812AL*	0.99	1.09	315(A,J)AV066135
CSPH*6012AL*	1.01	1.11	315(A,J)AV066135
CAP**4824AL*	0.98	1.02	315(A,J)AV066155
CAP**6024AL*	1.00	1.00	315(A,J)AV066155
CNPV*4824AL*	0.99	1.04	315(A,J)AV066155
CNPV*6024AL*	0.99	0.99	315(A,J)AV066155
CSPH*4812AL*	0.99	1.09	315(A,J)AV066155
CSPH*6012AL*	1.01	1.06	315(A,J)AV066155
CAP**4821AL*	0.98	1.08	98(6*B,7*A)60080V21
CAP**6021AL*	1.00	1.05	98(6*B,7*A)60080V21
CNPV*4821AL*	0.98	1.02	98(6*B,7*A)60080V21
CNPV*6021AL*	0.99	1.15	98(6*B,7*A)60080V21
CSPH*4812AL*	1.00	1.16	98(6*B,7*A)60080V21
CAP**4821AL*	0.98	1.02	98(6*B,7*A)66100V21
CAP**6021AL*	1.00	1.05	98(6*B,7*A)66100V21
CNPV*4821AL*	0.98	1.02	98(6*B,7*A)66100V21
CNPV*6021AL*	0.99	1.09	98(6*B,7*A)66100V21
CSPH*4812AL*	1.00	1.10	98(6*B,7*A)66120V24
CAP**4824AL*	0.98	1.02	98(6*B,7*A)66120V24
CAP**6024AL*	1.00	1.05	98(6*B,7*A)66120V24
CNPV*4824AL*	0.98	1.02	98(6*B,7*A)66120V24
CNPV*6024AL*	1.00	1.05	98(6*B,7*A)66120V24
CSPH*4812AL*	0.99	1.15	98(6*B,7*A)66120V24
CAP**6021AL*	0.97	1.06	98(6*B,7MA)60060V21
CAP**4821AL*	0.99	1.09	98(6*B,7MA)60060V21
CNPV*4821AL*	0.97	1.05	98(6*B,7MA)60060V21
CNPV*6021AL*	0.99	1.15	98(6*B,7MA)60060V21
CSPH*4812AL*	0.99	1.15	98(6*B,7MA)60060V21

2-STAGE (Hi-Stage 5, Lo-Stage 2)						
Cooling Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model	
FV4CN(B,F)005L	1.00	1.00	1.00	1.00		
FV4CNB006	1.02	1.02	1.01	0.97		
CAP**4817AL*	0.97	1.12	0.98	1.10	313*AV048070	
CSPH*4812AL*	0.97	1.12	0.98	1.09	313*AV048070	
CSPH*6012AL*	0.99	1.15	0.99	1.09	313*AV048070	
CAP**4821AL*	0.97	1.01	0.98	1.03	313*AV048090	
CAP**6021AL*	0.99	1.04	0.99	1.02	313*AV048090	
CNPV*4821AL*	0.97	1.01	0.99	1.02	313*AV048090	
CNPV*6021AL*	1.00	1.05	1.01	1.02	313*AV048090	
CSPH*4812AL*	0.98	1.08	0.99	1.03	313*AV048090	
CSPH*6012AL*	1.00	1.05	1.01	1.02	313*AV048090	
CAP**4821AL*	0.97	1.01	0.99	1.03	313*AV060110	
CAP**6021AL*	1.00	1.00	1.00	1.02	313*AV060110	
CNPV*4821AL*	0.98	1.02	0.99	1.03	313*AV060110	
CNPV*6021AL*	0.98	1.05	1.01	1.02	313*AV060110	
CSPH*4812AL*	1.00	1.08	1.01	1.02	313*AV060110	
CSPH*6012AL*	0.97	1.06	0.98	1.06	314AAV048070	
CAP**4817AL*	0.98	1.08	0.99	1.07	314AAV048070	
CSPH*4812AL*	0.99	1.09	1.00	1.06	314AAV048070	
CSPH*6012AL*	0.97	1.01	0.98	1.02	314AAV048090	
CAP**4821AL*	0.99	1.04	0.99	1.01	314AAV048090	
CAP**6021AL*	0.98	1.02	0.99	1.02	314AAV048090	
CNPV*4821AL*	0.98	1.08	0.99	1.02	314AAV048090	
CNPV*6021AL*	1.00	1.05	1.00	1.01	314AAV048090	
CSPH*4812AL*	0.97	1.01	0.98	1.00	314AAV066110	
CAP**4821AL*	1.00	1.00	0.99	1.00	314AAV066110	
CNPV*4821AL*	0.98	1.02	0.99	1.00	314AAV066110	
CNPV*6021AL*	0.98	1.05	1.01	1.01	314AAV066110	
CSPH*4812AL*	0.98	1.02	0.99	1.01	314AAV066110	
CSPH*6012AL*	1.00	1.05	1.01	1.00	314AAV066135	
CAP**4824AL*	0.97	1.01	0.98	1.00	314AAV066135	
CAP**6024AL*	1.00	1.00	0.99	1.00	314AAV066135	
CNPV*4824AL*	0.98	1.02	0.99	1.00	314AAV066135	
CNPV*6024AL*	1.00	1.00	1.00	1.00	314AAV066135	
CSPH*4812AL*	0.98	1.02	0.99	1.00	314AAV066135	
CSPH*6012AL*	1.00	1.05	1.00	0.99	314AAV066135	
CAP**4817AL*	0.97	1.08	0.99	1.04	922*A48080E17	
CSPH*4812AL*	0.98	1.08	0.99	1.04	922*A48080E17	
CSPH*6012AL*	1.00	1.10	1.00	1.03	922*A48080E17	
CAP**4821AL*	0.98	1.02	0.98	1.01	922*A60080E21	
CAP**6021AL*	1.00	1.05	0.99	1.01	922*A60080E21	
CNPV*4821AL*	0.98	1.02	0.99	1.01	922*A60080E21	
CNPV*6021AL*	0.99	1.09	0.99	1.01	922*A60080E21	
CSPH*4812AL*	1.01	1.06	1.01	1.00	922*A60080E21	
CAP**4821AL*	0.98	1.02	0.98	1.01	922*A60100E21	
CAP**6021AL*	1.00	1.05	0.99	1.01	922*A60100E21	
CNPV*4821AL*	0.98	1.02	0.99	1.01	922*A60100E21	
CNPV*6021AL*	0.99	1.09	0.99	1.02	922*A60100E21	
CSPH*4812AL*	1.01	1.08	1.01	1.01	922*A60100E21	
CSPH*6012AL*	0.98	1.02	0.99	1.02	922*A60120E24	
CAP**4824AL*	1.00	1.05	0.99	1.01	922*A60120E24	
CAP**6024AL*	0.98	1.02	0.99	1.01	922*A60120E24	
CNPV*4824AL*	1.00	1.05	1.00	1.01	922*A60120E24	
CNPV*6024AL*	0.98	1.08	0.99	1.02	922*A60120E24	
CSPH*4812AL*	0.98	1.08	0.99	1.02	922*A60120E24	

2-STAGE (Hi-Stage 5, Lo-Stage 2)						
Cooling Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model	
CSPH*6012AL*	1.01	1.06	1.01	1.01	922*A60120E24	
CAP**4817AL*	0.97	1.06	0.98	1.06	925*A48080E17	
CSPH*4812AL*	0.97	1.12	0.98	1.06	925*A48080E17	
CSPH*6012AL*	0.99	1.09	0.99	1.05	925*A48080E17	
CAP**4821AL*	0.97	1.01	0.99	1.01	925*A60100E21	
CAP**6021AL*	0.99	1.04	1.00	1.07	925*A60100E21	
CNPV*4821AL*	0.97	1.01	0.99	1.01	925*A60100E21	
CSPH*4812AL*	0.98	1.08	1.00	1.08	925*A60100E21	

See notes on page 28

# DETAILED COOLING CAPACITIES# - COMFORT + DEHUMIDIFY MODE

288BNV024 / FE4ANF005 EFFICIENCY MODE CONDENSER ENTERING AIR TEMPERATURES ° F (° C)

EDB ° F (° C)	EVAP AIR	115 (46.1)				105 (40.5)				95 (35)				85 (29.4)				75 (23.9)				65 (18.3)				
		Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	
		Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†			Total	Sens†			Total
75 (23.9)	72 (22.2)																									
	67 (19.4)																									
	63 (17.2)																									
	57 (13.9)																									
	57 (13.9)																									
80 (26.7)	72 (22.2)																									
	67 (19.4)																									
	63 (17.2)																									
	57 (13.9)																									
	57 (13.9)																									
75 (23.9)	72 (22.2)																									
	67 (19.4)																									
	63 (17.2)																									
	57 (13.9)																									
	57 (13.9)																									
80 (26.7)	72 (22.2)																									
	67 (19.4)																									
	63 (17.2)																									
	57 (13.9)																									
	57 (13.9)																									

See notes on page 28



DETAILED COOLING CAPACITIES# - COMFORT + DEHUMIDIFY MODE CONTINUED

288BNV024

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*FE4AN(B,F)005L	1.00	1.00	
FE4AN(B,F)003L	1.01	1.06	
FE4ANF002L	1.01	1.06	
CAP**3614AL*	1.01	1.06	315(A,J)AV036070
CSPH*3612AL*	1.03	1.13	315(A,J)AV036070
CSPH*4212AL*	1.03	1.13	315(A,J)AV036070
CAP**3617AL*	1.01	1.06	315(A,J)AV048090
CNPV*3617AL*	1.01	1.06	315(A,J)AV048090
CNPV*4217AL*	1.03	1.07	315(A,J)AV048090
CSPH*3612AL*	1.03	1.13	315(A,J)AV048090
CSPH*4212AL*	1.03	1.14	315(A,J)AV048090
CAP**3617AL*	1.00	1.05	98(6*B,7*A)42060V17
CNPV*3617AL*	1.00	1.05	98(6*B,7*A)42060V17
CNPV*4217AL*	1.02	1.07	98(6*B,7*A)42060V17
CSPH*3612AL*	1.02	1.12	98(6*B,7*A)42060V17
CSPH*4212AL*	1.03	1.13	98(6*B,7*A)42060V17
CAP**3617AL*	1.01	1.06	98(6*B,7*A)42080V17
CNPV*3617AL*	1.00	1.05	98(6*B,7*A)42080V17
CNPV*4217AL*	1.02	1.07	98(6*B,7*A)42080V17
CSPH*3612AL*	1.02	1.12	98(6*B,7*A)42080V17
CSPH*4212AL*	1.03	1.13	98(6*B,7*A)42080V17
CAP**3621AL*	1.01	1.06	98(6*B,7MA)60060V21
CNPV*3621AL*	1.00	1.05	98(6*B,7MA)60060V21
CNPV*4221AL*	1.01	1.06	98(6*B,7MA)60060V21
CSPH*3612AL*	1.02	1.12	98(6*B,7MA)60060V21
CSPH*4212AL*	1.03	1.13	98(6*B,7MA)60060V21

2-STAGE (Hi-Stage 5, Lo-Stage 2)						
Cooling Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model	
FV4CN(F)003	0.93	1.06	0.97	1.03		
FV4CN(F)002L	0.92	1.09	0.98	1.05		
CAP**2414AL*	0.93	1.11	0.98	1.09	313*AV024045	
CAP**3014AL*	0.95	1.08	0.98	1.09	313*AV024045	
CAP**3614AL*	0.95	1.08	0.98	1.08	313*AV024045	
CSPH*2412AL*	0.93	1.11	0.98	1.08	313*AV024045	
CSPH*3012AL*	0.95	1.08	0.99	1.08	313*AV024045	
CSPH*3612AL*	0.97	1.10	0.99	1.07	313*AV024045	
CAP**2414AL*	0.93	1.08	0.96	1.10	922*A30040E14	
CAP**3014AL*	0.94	1.12	0.96	1.09	922*A30040E14	
CAP**3614AL*	0.94	1.12	0.96	1.09	922*A30040E14	
CNPV*3014AL*	0.95	1.13	0.96	1.09	922*A30040E14	
CSPH*2412AL*	0.93	1.11	0.96	1.09	922*A30040E14	
CSPH*3012AL*	0.95	1.13	0.98	1.08	922*A30040E14	
CSPH*3612AL*	0.97	1.10	0.98	1.08	922*A30040E14	
CAP**2417AL*	0.93	1.11	0.96	1.09	922*A36040E17	
CAP**3017AL*	0.94	1.12	0.96	1.09	922*A36040E17	
CAP**3617AL*	0.95	1.13	0.97	1.09	922*A36040E17	
CNPV*3017AL*	0.94	1.12	0.96	1.09	922*A36040E17	
CNPV*3617AL*	0.94	1.12	0.96	1.09	922*A36040E17	
CNPV*4217AL*	0.96	1.09	0.97	1.08	922*A36040E17	
CSPH*2412AL*	0.93	1.11	0.96	1.10	922*A36040E17	
CSPH*3012AL*	0.94	1.12	0.97	1.08	922*A36040E17	
CSPH*3612AL*	0.96	1.09	0.98	1.08	922*A36040E17	
CAP**2414AL*	0.93	1.06	0.98	1.07	922*A36060E14	
CAP**3014AL*	0.96	1.09	0.99	1.05	922*A36060E14	
CAP**3614AL*	0.96	1.09	0.99	1.06	922*A36060E14	
CNPV*3014AL*	0.97	1.15	0.98	1.07	922*A36060E14	
CSPH*2412AL*	0.93	1.06	0.98	1.07	922*A36060E14	
CSPH*3012AL*	0.96	1.09	0.99	1.05	922*A36060E14	
CSPH*3612AL*	0.97	1.10	1.00	1.05	922*A36060E14	
CAP**2414AL*	0.93	1.11	0.96	1.13	925*A30040E14	
CAP**3014AL*	0.94	1.12	0.96	1.12	925*A30040E14	
CAP**3614AL*	0.95	1.13	0.96	1.11	925*A30040E14	
CNPV*3014AL*	0.94	1.12	0.96	1.13	925*A30040E14	
CSPH*2412AL*	0.93	1.11	0.96	1.12	925*A30040E14	
CSPH*3012AL*	0.93	1.11	0.96	1.12	925*A30040E14	
CSPH*3612AL*	0.95	1.13	0.97	1.11	925*A30040E14	
CAP**2417AL*	0.93	1.10	0.96	1.11	925*A36040E17	
CAP**3017AL*	0.93	1.11	0.96	1.10	925*A36040E17	
CAP**3617AL*	0.94	1.12	0.96	1.09	925*A36040E17	
CNPV*3017AL*	0.93	1.11	0.96	1.10	925*A36040E17	
CNPV*3617AL*	0.93	1.11	0.96	1.10	925*A36040E17	
CNPV*4217AL*	0.93	1.11	0.97	1.09	925*A36040E17	
CSPH*2412AL*	0.93	1.10	0.96	1.11	925*A36040E17	
CSPH*3012AL*	0.93	1.11	0.97	1.09	925*A36040E17	
CSPH*3612AL*	0.95	1.08	0.97	1.09	925*A36040E17	

See notes on page 28

# DETAILED COOLING CAPACITIES# - COMFORT + DEHUMIDIFY MODE

288BNV02S / FE4ANF005 EFFICIENCY MODE CONDENSER ENTERING AIR TEMPERATURES ° F (° C)

EDB ° F (° C)	EVAP AIR ° F (° C)	115 (46.1)				105 (40.5)				95 (35)				85 (29.4)				75 (23.9)				65 (18.3)			
		Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**
		Total	Sensit			Total	Sensit			Total	Sensit			Total	Sensit			Total	Sensit			Total	Sensit		
75 (23.9)	72 (22.2)																								
	67 (19.4)																								
	63 (17.2)			N/A																					
	57 (13.9)																								
	72 (22.2)																								
80 (26.7)	72 (22.2)																								
	67 (19.4)																								
	63 (17.2)			N/A																					
	57 (13.9)																								
	72 (22.2)																								
75 (23.9)	72 (22.2)																								
	67 (19.4)																								
	63 (17.2)			N/A																					
	57 (13.9)																								
	72 (22.2)																								
80 (26.7)	72 (22.2)																								
	67 (19.4)																								
	63 (17.2)			N/A																					
	57 (13.9)																								
	72 (22.2)																								
75 (23.9)	72 (22.2)																								
	67 (19.4)																								
	63 (17.2)			N/A																					
	57 (13.9)																								
	72 (22.2)																								
80 (26.7)	72 (22.2)																								
	67 (19.4)																								
	63 (17.2)			N/A																					
	57 (13.9)																								
	72 (22.2)																								

See notes on page 28



288BNV

DETAILED COOLING CAPACITIES# - COMFORT + DEHUMIDIFY MODE CONTINUED

288BNV025

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL	2-STAGE (Hi-Stage 5, Lo-Stage 2)					
				Cooling Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model
*FE4AN(B/F)005L	1.00	1.00		FV4CN(B/F)003	0.94	0.98	0.97	1.00	
FE4AN(B/F)003	1.01	1.05		FV4CNF002L	0.94	0.98	0.98	1.02	
FE4ANF002L	1.01	1.10		CAP**2414AL*	0.94	1.03	0.98	1.10	313*AV024045
CAP**3614AL*	1.01	1.05	315(A,J)AV036070	CAP**3014AL*	0.95	0.99	0.98	1.09	313*AV024045
CSPH*3612AL*	1.03	1.11	315(A,J)AV036070	CAP**3614AL*	0.96	1.00	0.98	1.09	313*AV024045
CSPH*4212AL*	1.03	1.11	315(A,J)AV036070	CSPH*2412AL*	0.95	1.08	0.98	1.10	313*AV024045
CAP**3617AL*	1.01	1.05	315(A,J)AV048090	CSPH*3012AL*	0.96	1.04	0.99	1.08	313*AV024045
CNPV*3617AL*	1.01	1.05	315(A,J)AV048090	CSPH*3612AL*	0.98	1.02	0.99	1.08	313*AV024045
CSPH*3612AL*	1.03	1.11	315(A,J)AV048090	CAP**2414AL*	0.93	1.02	0.96	1.11	922*A30040E14
CSPH*4212AL*	1.03	1.12	315(A,J)AV048090	CAP**3014AL*	0.93	1.03	0.96	1.10	922*A30040E14
CAP**3617AL*	1.00	1.09	98(6*B,7*A)42060V17	CAP**3614AL*	0.95	1.03	0.97	1.10	922*A30040E14
CNPV*3617AL*	1.00	1.09	98(6*B,7*A)42060V17	CNPV*3014AL*	0.96	1.04	0.96	1.10	922*A30040E14
CSPH*3612AL*	1.02	1.11	98(6*B,7*A)42060V17	CSPH*2412AL*	0.94	1.03	0.97	1.11	922*A30040E14
CSPH*4212AL*	1.02	1.16	98(6*B,7*A)42060V17	CSPH*3012AL*	0.95	1.03	0.98	1.09	922*A30040E14
CAP**3617AL*	1.03	1.11	98(6*B,7*A)42060V17	CSPH*3612AL*	0.97	1.05	0.99	1.08	922*A30040E14
CNPV*3617AL*	1.01	1.05	98(6*B,7*A)42060V21	CAP**2414AL*	0.96	1.00	0.99	1.08	922*A30040E14
CNPV*3621AL*	1.00	1.09	98(6*B,7MA)60060V21	CAP**3614AL*	0.97	1.01	0.99	1.08	922*A30040E14
CNPV*4212AL*	1.01	1.05	98(6*B,7MA)60060V21	CNPV*3014AL*	0.98	1.06	0.99	1.08	922*A30040E14
CSPH*3612AL*	1.02	1.11	98(6*B,7MA)60060V21	CSPH*2412AL*	0.95	1.03	0.99	1.08	922*A30040E14
CSPH*4212AL*	1.03	1.11	98(6*B,7MA)60060V21	CSPH*3012AL*	0.97	1.05	1.00	1.07	922*A30040E14
				CSPH*3612AL*	0.98	1.02	1.01	1.06	922*A30040E14
				CAP**2414AL*	0.93	1.06	0.96	1.14	925*A30040E14
				CAP**3014AL*	0.95	1.08	0.96	1.13	925*A30040E14
				CAP**3614AL*	0.95	1.08	0.96	1.13	925*A30040E14
				CNPV*3014AL*	0.94	1.07	0.96	1.13	925*A30040E14
				CNPV*3614AL*	0.94	1.12	0.96	1.14	925*A30040E14
				CSPH*2412AL*	0.94	1.08	0.97	1.12	925*A30040E14
				CSPH*3012AL*	0.97	1.10	0.98	1.12	925*A30040E14
				CAP**2417AL*	0.93	1.01	0.96	1.12	925*A30040E17
				CAP**3017AL*	0.94	1.03	0.96	1.11	925*A30040E17
				CNPV*3017AL*	0.93	1.02	0.96	1.12	925*A30040E17
				CNPV*3617AL*	0.93	1.02	0.96	1.12	925*A30040E17
				CSPH*2417AL*	0.95	1.03	0.98	1.11	925*A30040E17
				CSPH*2412AL*	0.93	1.06	0.96	1.12	925*A30040E17
				CSPH*3012AL*	0.94	1.03	0.98	1.10	925*A30040E17
				CSPH*3612AL*	0.96	1.04	0.98	1.10	925*A30040E17

See notes on page 28



# DETAILED COOLING CAPACITIES# - COMFORT + DEHUMIDIFY MODE

288BNV036 / FE4ANF005 EFFICIENCY MODE CONDENSER ENTERING AIR TEMPERATURES ° F (° C)

EDB ° F (° C)	EVAP AIR ° F (° C)	115 (46.1)			105 (40.5)			95 (35)			85 (29.4)			75 (23.9)			65 (18.3)		
		ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**	ID SCFM	Capacity MBtuh		Total Sys KW**		
			Total	Sensit			Total	Sensit			Total	Sensit			Total	Sensit			
75 (23.9)	72 (22.2)																		
	67 (19.4)																		
	63 (17.2)																		
	57 (13.9)																		
	72 (22.2)																		
80 (26.7)	72 (22.2)																		
	67 (19.4)																		
	63 (17.2)																		
	57 (13.9)																		
	72 (22.2)																		
75 (23.9)	72 (22.2)																		
	67 (19.4)																		
	63 (17.2)																		
	57 (13.9)																		
	72 (22.2)																		
80 (26.7)	72 (22.2)																		
	67 (19.4)																		
	63 (17.2)																		
	57 (13.9)																		
	72 (22.2)																		
75 (23.9)	72 (22.2)																		
	67 (19.4)																		
	63 (17.2)																		
	57 (13.9)																		
	72 (22.2)																		
80 (26.7)	72 (22.2)																		
	67 (19.4)																		
	63 (17.2)																		
	57 (13.9)																		
	72 (22.2)																		

See notes on page 28



288BNV

DETAILED COOLING CAPACITIES# - COMFORT + DEHUMIDIFY MODE CONTINUED

288BNV036

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*FE4AN(B,F)005	1.00	1.00	
FE4AN(B,F)003	0.96	1.06	
FE4ANF002	0.95	1.05	
CAP**3614AL*	0.95	1.05	315(A,J)AV036070
CSPH**3612AL*	0.97	1.07	315(A,J)AV036070
CSPH**4212AL*	0.98	1.08	315(A,J)AV036070
CSPH**4812AL*	0.98	1.09	315(A,J)AV048090
CAP**3617AL*	0.96	1.06	315(A,J)AV048090
CAP**4817AL*	0.98	1.03	315(A,J)AV048090
CNPV**3617AL*	0.95	1.05	315(A,J)AV048090
CNPV**4217AL*	0.97	1.07	315(A,J)AV048090
CSPH**3612AL*	0.98	1.08	315(A,J)AV048090
CSPH**4212AL*	0.98	1.09	315(A,J)AV048090
CSPH**4812AL*	0.98	1.09	315(A,J)AV048090
CAP**3621AL*	0.96	1.06	315(A,J)AV060110
CAP**4221AL*	0.96	1.07	315(A,J)AV060110
CNPV**4221AL*	0.98	1.03	315(A,J)AV060110
CSPH**3612AL*	0.98	1.08	315(A,J)AV060110
CSPH**4212AL*	0.95	1.05	315(A,J)AV060110
CNPV**4221AL*	0.96	1.07	315(A,J)AV060110
CNPV**4821AL*	0.98	1.03	315(A,J)AV060110
CSPH**3612AL*	0.98	1.08	315(A,J)AV060110
CSPH**4212AL*	0.98	1.09	315(A,J)AV060110
CAP**4224AL*	0.96	1.06	315(A,J)AV066135
CNPV**4224AL*	0.98	1.03	315(A,J)AV066135
CSPH**4824AL*	0.98	1.03	315(A,J)AV066135
CNPV**3612AL*	0.98	1.08	315(A,J)AV066135
CSPH**4812AL*	0.99	1.09	315(A,J)AV066135
CAP**4224AL*	0.96	1.01	315(A,J)AV066155
CNPV**4824AL*	0.98	1.03	315(A,J)AV066155
CSPH**4824AL*	0.98	1.03	315(A,J)AV066155
CNPV**3612AL*	0.98	1.09	315(A,J)AV066155
CSPH**4212AL*	0.98	1.09	315(A,J)AV066155
CAP**3617AL*	0.95	1.11	98(6*B,7*A)42060V17
CAP**4817AL*	0.97	1.07	98(6*B,7*A)42060V17
CNPV**4217AL*	0.96	1.11	98(6*B,7*A)42060V17
CSPH**4217AL*	0.96	1.07	98(6*B,7*A)42060V17
CSPH**3612AL*	0.96	1.13	98(6*B,7*A)42060V17
CSPH**4212AL*	0.98	1.14	98(6*B,7*A)42060V17
CAP**3617AL*	0.95	1.05	98(6*B,7*A)42080V17
CAP**4817AL*	0.98	1.08	98(6*B,7*A)42080V17
CNPV**4817AL*	0.95	1.11	98(6*B,7*A)42080V17
CSPH**4817AL*	0.96	1.07	98(6*B,7*A)42080V17
CSPH**3612AL*	0.97	1.13	98(6*B,7*A)42080V17
CSPH**4212AL*	0.98	1.13	98(6*B,7*A)42080V17
CAP**3621AL*	0.96	1.06	98(6*B,7*A)60080V21
CAP**4821AL*	0.98	1.08	98(6*B,7*A)60080V21
CNPV**4821AL*	0.95	1.05	98(6*B,7*A)60080V21
CSPH**3621AL*	0.96	1.06	98(6*B,7*A)60080V21
CNPV**4221AL*	0.96	1.07	

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV**4821AL*	0.98	1.08	98(6*B,7*A)60080V21
CSPH**3612AL*	0.98	1.08	98(6*B,7*A)60080V21
CSPH**4212AL*	0.98	1.09	98(6*B,7*A)60080V21
CSPH**4812AL*	0.98	1.09	98(6*B,7*A)60080V21
CAP**3621AL*	0.96	1.07	98(6*B,7*A)66100V21
CAP**4221AL*	0.96	1.03	98(6*B,7*A)66100V21
CNPV**4221AL*	0.98	1.03	98(6*B,7*A)66100V21
CSPH**3612AL*	0.98	1.08	98(6*B,7*A)66100V21
CSPH**4212AL*	0.98	1.09	98(6*B,7*A)66100V21
CSPH**4812AL*	0.98	1.09	98(6*B,7*A)66100V21
CAP**4224AL*	0.96	1.07	98(6*B,7*A)66120V24
CAP**4824AL*	0.98	1.03	98(6*B,7*A)66120V24
CNPV**4824AL*	0.98	1.08	98(6*B,7*A)66120V24
CSPH**3612AL*	0.98	1.14	98(6*B,7*A)66120V24
CSPH**4212AL*	0.98	1.09	98(6*B,7*A)66120V24
CSPH**4812AL*	0.98	1.09	98(6*B,7*A)66120V24
CAP**3621AL*	0.95	1.05	98(6*B,7MA)60060V21
CAP**4221AL*	0.96	1.06	98(6*B,7MA)60060V21
CNPV**4221AL*	0.97	1.07	98(6*B,7MA)60060V21
CNPV**4821AL*	0.95	1.11	98(6*B,7MA)60060V21
CNPV**4221AL*	0.96	1.06	98(6*B,7MA)60060V21
CNPV**4821AL*	0.98	1.08	98(6*B,7MA)60060V21
CSPH**3612AL*	0.97	1.13	98(6*B,7MA)60060V21
CSPH**4212AL*	0.98	1.08	98(6*B,7MA)60060V21
CSPH**4812AL*	0.98	1.08	98(6*B,7MA)60060V21
CSPH**4212AL*	0.98	1.08	98(6*B,7MA)60060V21

Cooling Indoor Model	2-STAGE (Hi-Stage 5, Lo-Stage 2)			Furnace Model
	High Speed Cap.	Power	Low Speed Cap.	
FV4CN(B,F)005L	0.97	1.00	1.00	
FV4CN(B,F)003	0.97	0.97	1.09	
FV4CNF002L	0.95	1.00	1.08	
CAP**3614AL*	0.94	1.05	1.19	313*AV024045
CSPH**4212AL*	0.98	1.09	1.08	313*AV024045
CSPH**4812AL*	0.98	1.09	1.08	313*AV024045
CNPV**4217AL*	0.97	1.02	1.09	313*AV024045
CNPV**4817AL*	0.94	1.05	1.07	314AAV048070
CAP**3617AL*	0.94	1.05	1.07	922*AS6040E17
CAP**4817AL*	0.98	1.09	1.05	922*AS6040E17
CNPV**3617AL*	0.94	1.04	1.05	922*AS6040E17
CNPV**4217AL*	0.96	1.07	1.07	922*AS6040E17
CSPH**3612AL*	0.97	1.07	1.07	922*AS6040E17
CSPH**4212AL*	0.97	1.08	1.07	922*AS6040E17
CSPH**4812AL*	0.98	1.09	1.08	922*AS6040E17
CAP**3614AL*	0.95	1.00	1.07	922*AS6060E14
CSPH**3612AL*	0.98	1.03	1.09	922*AS6060E14
CSPH**4212AL*	0.98	1.03	1.09	922*AS6060E14
CSPH**4812AL*	0.99	1.04	1.09	922*AS6060E14
CAP**3617AL*	0.95	1.00	1.07	922*AA2060E17
CAP**4817AL*	0.99	1.03	1.08	922*AA2060E17
CNPV**3617AL*	0.95	1.00	1.06	922*AA2060E17
CNPV**4217AL*	0.97	1.02	1.08	922*AA2060E17
CNPV**4817AL*	0.98	1.03	1.08	922*AA2060E17
CSPH**3612AL*	0.98	1.03	1.09	922*AA2060E17
CSPH**4212AL*	0.98	1.03	1.09	922*AA2060E17
CSPH**4812AL*	0.99	1.04	1.09	922*AA2060E17
CAP**3617AL*	0.95	1.00	1.07	922*AA8080E17
CAP**4817AL*	0.99	1.03	1.08	922*AA8080E17
CNPV**3617AL*	0.95	1.00	1.06	922*AA8080E17
CNPV**4217AL*	0.97	1.02	1.08	922*AA8080E17
CNPV**4817AL*	0.98	1.03	1.08	922*AA8080E17
CSPH**3612AL*	0.98	1.03	1.09	922*AA8080E17
CSPH**4212AL*	0.98	1.03	1.09	922*AA8080E17
CSPH**4812AL*	0.99	1.04	1.09	922*AA8080E17
CAP**3617AL*	0.95	1.00	1.07	925*AS6040E17
CAP**4817AL*	0.99	1.03	1.08	925*AS6040E17
CNPV**3617AL*	0.95	1.00	1.06	925*AS6040E17
CNPV**4217AL*	0.97	1.02	1.08	925*AS6040E17
CNPV**4817AL*	0.98	1.03	1.08	925*AS6040E17
CSPH**3612AL*	0.98	1.03	1.09	925*AS6040E17
CSPH**4212AL*	0.97	1.14	1.07	925*AS6060E14
CSPH**4812AL*	0.97	1.14	1.07	925*AS6060E14
CAP**3617AL*	0.95	1.00	1.06	925*AA2060E17
CAP**4817AL*	0.99	1.03	1.08	925*AA2060E17
CNPV**3617AL*	0.95	1.00	1.06	925*AA2060E17
CNPV**4217AL*	0.97	1.02	1.07	925*AA2060E17
CNPV**4817AL*	0.97	1.02	1.07	925*AA2060E17
CSPH**3612AL*	0.97	1.02	1.07	925*AA2060E17
CSPH**4212AL*	0.98	1.03	1.08	925*AA2060E17
CSPH**4812AL*	0.98	1.03	1.08	925*AA2060E17

See notes on page 28

# DETAILED COOLING CAPACITIES# - COMFORT + DEHUMIDIFY MODE

288BNV048 / FE4ANF005 EFFICIENCY MODE CONDENSER ENTERING AIR TEMPERATURES ° F (° C)

EDB ° F (° C)	EVB AIR ° F (° C)	115 (46.1)				105 (40.5)				95 (35)				85 (29.4)				75 (23.9)				65 (18.3)			
		Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**	Capacity MBtuh		ID SCFM	Total Sys KW**
		Total	Sensit			Total	Sensit			Total	Sensit			Total	Sensit			Total	Sensit			Total	Sensit		
<b>75 (23.9)</b>	<sup>72</sup> (22.2)																								
	<sup>67</sup> (19.4)																								
	<sup>63</sup> (17.2)																								
	<sup>57</sup> (13.9)																								
	<sup>72</sup> (22.2)																								
<b>80 (26.7)</b>	<sup>67</sup> (19.4)																								
	<sup>63</sup> (17.2)																								
	<sup>57</sup> (13.9)																								
	<sup>72</sup> (22.2)																								
	<sup>67</sup> (19.4)																								
<b>75 (23.9)</b>	<sup>72</sup> (22.2)																								
	<sup>67</sup> (19.4)																								
	<sup>63</sup> (17.2)																								
	<sup>57</sup> (13.9)																								
	<sup>72</sup> (22.2)																								
<b>80 (26.7)</b>	<sup>67</sup> (19.4)																								
	<sup>63</sup> (17.2)																								
	<sup>57</sup> (13.9)																								
	<sup>72</sup> (22.2)																								
	<sup>67</sup> (19.4)																								

See notes on page 28





# HEAT PUMP HEATING PERFORMANCE - EFFICIENCY MODE

288BNV024 / FE4ANF005 HEATING EFFICIENCY MODE - OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		Total Sys KWt
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†				
														Total	Integ†	
<b>7 (-13.9)</b>																
<b>STAGE 5</b>																
65 (18.3)	N/A			N/A												
70 (21.1)	N/A			N/A												
75 (23.9)	N/A			N/A												
<b>17 (-8.3)</b>																
<b>STAGE 3</b>																
65 (18.3)	N/A			340												
70 (21.1)	N/A			340												
75 (23.9)	N/A			340												
<b>27 (-2.8)</b>																
<b>STAGE 1</b>																
65 (18.3)	N/A			N/A												
70 (21.1)	N/A			N/A												
75 (23.9)	N/A			N/A												

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		Total Sys KWt
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†				
														Total	Integ†	
<b>7 (-13.9)</b>																
<b>STAGE 5</b>																
65 (18.3)	825	23.91	21.76	2.02	25.34	25.34	1.97	18.00	18.00	650	16.04	16.04	1.27	17.70	17.70	1.27
70 (21.1)	825	23.61	21.48	2.11	25.00	25.00	2.06	16.04	16.04	650	16.04	16.04	1.27	17.70	17.70	1.27
75 (23.9)	825	23.30	21.20	2.21	24.63	24.63	2.15	15.80	15.80	650	15.80	15.80	1.34	17.38	17.38	1.34
<b>47 (8.3)</b>																
<b>STAGE 3</b>																
65 (18.3)	650	14.67	13.85	1.22	16.30	16.30	1.20	7.58	7.58	585	7.40	7.40	0.48	8.83	8.83	0.47
70 (21.1)	650	14.46	13.16	1.29	16.04	16.04	1.27	7.40	7.40	585	7.40	7.40	0.48	8.83	8.83	0.47
75 (23.9)	650	14.25	12.97	1.35	15.80	15.80	1.34	7.22	7.22	585	7.22	7.22	0.52	8.62	8.62	0.52
<b>57 (13.9)</b>																
<b>STAGE 1</b>																
65 (18.3)	N/A															
70 (21.1)	N/A															
75 (23.9)	N/A															

See notes on page 44

HEAT PUMP HEATING PERFORMANCE - EFFICIENCY MODE CONTINUED

288BNV024

HEATING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*FE4ANI(B,F)005L	1.00	1.00	
FE4ANI(B,F)003	1.00	1.02	
FE4ANF002L	1.04	1.06	
CAP**3614AL*	1.03	1.06	315(A,J)AV036070
CSPH*3612AL*	1.02	1.02	315(A,J)AV036070
CSPH*4212AL*	1.01	1.01	315(A,J)AV036070
CAP**3617AL*	1.02	1.05	315(A,J)AV048090
CNPV*3617AL*	1.03	1.06	315(A,J)AV048090
CNPV*4217AL*	1.02	1.02	315(A,J)AV048090
CSPH*3612AL*	1.02	1.02	315(A,J)AV048090
CSPH*4212AL*	1.01	1.00	315(A,J)AV048090
CAP**3617AL*	1.03	1.07	98(6*B,7*A)42060V17
CNPV*3617AL*	1.04	1.08	98(6*B,7*A)42060V17
CNPV*4217AL*	1.02	1.04	98(6*B,7*A)42060V17
CSPH*3612AL*	1.02	1.04	98(6*B,7*A)42060V17
CSPH*4212AL*	1.03	1.03	98(6*B,7*A)42060V17
CAP**3617AL*	1.02	1.06	98(6*B,7*A)42060V17
CNPV*3617AL*	1.04	1.08	98(6*B,7*A)42060V17
CNPV*4217AL*	1.02	1.04	98(6*B,7*A)42060V17
CSPH*3612AL*	1.02	1.02	98(6*B,7*A)42060V17
CSPH*4212AL*	1.04	1.07	98(6*B,7*A)60060V21
CAP**3621AL*	1.03	1.08	98(6*B,7*MA)60060V21
CNPV*4221AL*	1.03	1.06	98(6*B,7*MA)60060V21
CSPH*3612AL*	1.02	1.04	98(6*B,7*MA)60060V21
CSPH*4212AL*	1.02	1.02	98(6*B,7*MA)60060V21

2-STAGE (Hi-Stage 5, Lo-Stage 3)						
Heating Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model	
FV4CNI(B,F)003	0.84	0.92	0.77	0.82		
FV4CNF002L	0.84	0.90	0.77	0.81		
CAP**2414AL*	0.84	0.92	1.05	1.12	313*AV024045	
CAP**3014AL*	0.84	0.92	1.03	1.09	313*AV024045	
CAP**3614AL*	0.84	0.91	1.02	1.07	313*AV024045	
CSPH*2412AL*	0.84	0.91	1.04	1.11	313*AV024045	
CSPH*3012AL*	0.84	0.88	1.04	1.08	313*AV024045	
CSPH*3612AL*	0.84	0.88	1.02	1.05	313*AV024045	
CAP**2414AL*	0.84	0.93	1.05	1.15	922*AS0040E14	
CAP**3014AL*	0.84	0.93	1.02	1.11	922*AS0040E14	
CAP**3614AL*	0.84	0.92	1.02	1.10	922*AS0040E14	
CNPV*3014AL*	0.84	0.90	1.02	1.11	922*AS0040E14	
CSPH*2412AL*	0.84	0.92	1.04	1.13	922*AS0040E14	
CSPH*3012AL*	0.84	0.90	1.04	1.11	922*AS0040E14	
CSPH*3612AL*	0.84	0.89	1.02	1.08	922*AS0040E14	
CAP**2417AL*	0.84	0.92	1.05	1.14	922*AS6040E17	
CAP**3017AL*	0.84	0.92	1.02	1.11	922*AS6040E17	
CAP**3617AL*	0.84	0.92	1.02	1.10	922*AS6040E17	
CNPV*3017AL*	0.84	0.93	1.02	1.11	922*AS6040E17	
CNPV*4217AL*	0.84	0.90	1.02	1.09	922*AS6040E17	
CSPH*4217AL*	0.84	0.93	1.02	1.11	922*AS6040E17	
CNPV*3014AL*	0.84	0.89	1.03	1.07	922*AS6060E14	
CNPV*3014AL*	0.84	0.88	1.03	1.07	922*AS6060E14	
CSPH*2412AL*	0.84	0.89	1.04	1.09	922*AS6060E14	
CSPH*3012AL*	0.84	0.87	1.04	1.06	922*AS6060E14	
CSPH*3612AL*	0.84	0.87	1.02	1.03	922*AS6060E14	
CAP**2414AL*	0.84	0.92	1.05	1.16	925*AS0040E14	
CAP**3014AL*	0.84	0.92	1.02	1.12	925*AS0040E14	
CAP**3614AL*	0.84	0.92	1.02	1.11	925*AS0040E14	
CNPV*3014AL*	0.84	0.93	1.02	1.12	925*AS0040E14	
CSPH*2412AL*	0.84	0.91	1.04	1.15	925*AS0040E14	
CSPH*3012AL*	0.84	0.89	1.04	1.13	925*AS0040E14	
CSPH*3612AL*	0.84	0.89	1.02	1.10	925*AS0040E14	
CAP**2417AL*	0.84	0.95	1.05	1.15	925*AS6040E17	
CAP**3017AL*	0.84	0.94	1.02	1.11	925*AS6040E17	
CAP**3617AL*	0.84	0.93	1.02	1.10	925*AS6040E17	
CNPV*3017AL*	0.84	0.95	1.02	1.11	925*AS6040E17	
CNPV*3617AL*	0.84	0.95	1.02	1.11	925*AS6040E17	
CNPV*4217AL*	0.84	0.92	1.02	1.09	925*AS6040E17	
CSPH*2412AL*	0.84	0.94	1.04	1.15	925*AS6040E17	
CSPH*3012AL*	0.84	0.92	1.04	1.12	925*AS6040E17	
CSPH*3612AL*	0.84	0.92	1.02	1.09	925*AS6040E17	

See notes on page 44

# HEAT PUMP HEATING PERFORMANCE - EFFICIENCY MODE CONTINUED

288BNV025 / FE4ANF005 HEATING EFFICIENCY MODE - OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		Total Sys KWt
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†	
<b>STAGE 5</b>																
65 (18.3)	N/A			N/A												
70 (21.1)	N/A			N/A												
75 (23.9)	N/A			N/A												
<b>STAGE 3</b>																
65 (18.3)	N/A			340												
70 (21.1)	N/A			340												
75 (23.9)	N/A			340												
<b>STAGE 1</b>																
65 (18.3)	N/A			N/A												
70 (21.1)	N/A			N/A												
75 (23.9)	N/A			N/A												

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		Total Sys KWt
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†	
<b>STAGE 5</b>																
65 (18.3)	825	25.00	22.75	27.16	27.16	27.16	2.11									
70 (21.1)	825	24.69	22.46	26.80	26.80	26.80	2.21									
75 (23.9)	825	24.36	22.17	26.41	26.41	26.41	2.31									
<b>STAGE 3</b>																
65 (18.3)	650	15.11	13.75	17.04	17.04	17.04	1.25									
70 (21.1)	650	14.89	13.55	16.77	16.77	16.77	1.32									
75 (23.9)	650	14.67	13.35	16.51	16.51	16.51	1.40									
<b>STAGE 1</b>																
65 (18.3)	N/A			7.58	7.58	7.58	0.44									
70 (21.1)	N/A			7.40	7.40	7.40	0.48									
75 (23.9)	N/A			7.22	7.22	7.22	0.52									

See notes on page 44

HEAT PUMP HEATING PERFORMANCE - EFFICIENCY MODE - CONTINUED

288BNV025

HEATING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL	2-STAGE (Hi-Stage 5, Lo-Stage 3)					Furnace Model
				Heating Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	
*FE4ANI(B,F)005L	1.00	1.00		FV4CN(B,F)003	1.01	1.09	1.01	1.00	
FE4ANI(B,F)003	1.04	1.07		FV4CNF002L	1.03	1.09	1.01	1.05	
FE4ANF002L	1.08	1.10		CAP**2414AL*	1.05	1.14	1.05	1.10	313*AV024045
CAP**3614AL*	1.07	1.11	315(A,J)AV036070	CAP**3014AL*	1.03	1.12	1.03	1.07	313*AV024045
CSPH*3612AL*	1.06	1.07	315(A,J)AV036070	CAP**3614AL*	1.03	1.10	1.02	1.05	313*AV024045
CSPH*4212AL*	1.05	1.05	315(A,J)AV036070	CSPH*2412AL*	1.05	1.12	1.04	1.09	313*AV024045
CAP**3617AL*	1.07	1.09	315(A,J)AV048090	CSPH*3012AL*	1.05	1.09	1.04	1.07	313*AV024045
CNPV*3617AL*	1.07	1.10	315(A,J)AV048090	CSPH*3612AL*	1.03	1.06	1.02	1.04	313*AV024045
CSPH*3612AL*	1.06	1.06	315(A,J)AV048090	CAP**2414AL*	1.05	1.15	1.05	1.13	922*AS30040E14
CSPH*4212AL*	1.05	1.05	315(A,J)AV048090	CAP**3014AL*	1.03	1.13	1.02	1.09	922*AS30040E14
CAP**3617AL*	1.07	1.11	98(6*B,7*A)42060V17	CAP**3614AL*	1.03	1.12	1.02	1.08	922*AS30040E14
CNPV*3617AL*	1.08	1.13	98(6*B,7*A)42060V17	CNPV*3014AL*	1.05	1.11	1.02	1.09	922*AS30040E14
CNPV*4217AL*	1.07	1.09	98(6*B,7*A)42060V17	CSPH*2412AL*	1.05	1.13	1.04	1.11	922*AS30040E14
CSPH*3612AL*	1.07	1.09	98(6*B,7*A)42060V17	CSPH*3012AL*	1.04	1.10	1.04	1.09	922*AS30040E14
CSPH*4212AL*	1.06	1.07	98(6*B,7*A)42060V17	CAP**3017AL*	1.03	1.08	1.02	1.06	922*AS30040E14
CAP**3617AL*	1.07	1.11	98(6*B,7*A)42080V17	CAP**2417AL*	1.05	1.14	1.05	1.13	922*AS36040E17
CNPV*3617AL*	1.08	1.12	98(6*B,7*A)42080V17	CAP**3617AL*	1.03	1.12	1.02	1.08	922*AS36040E17
CNPV*4217AL*	1.07	1.08	98(6*B,7*A)42080V17	CNPV*3017AL*	1.03	1.14	1.02	1.09	922*AS36040E17
CSPH*3612AL*	1.07	1.08	98(6*B,7*A)42080V17	CNPV*3617AL*	1.03	1.14	1.02	1.09	922*AS36040E17
CSPH*4212AL*	1.06	1.07	98(6*B,7*A)42080V17	CNPV*4217AL*	1.03	1.09	1.02	1.06	922*AS36040E17
CNPV*3621AL*	1.07	1.11	98(6*B,7*MA)60060V21	CSPH*2412AL*	1.05	1.14	1.04	1.13	922*AS36040E17
CNPV*3621AL*	1.08	1.12	98(6*B,7*MA)60060V21	CSPH*3012AL*	1.04	1.10	1.03	1.09	922*AS36040E17
CNPV*3621AL*	1.08	1.10	98(6*B,7*MA)60060V21	CSPH*3612AL*	1.03	1.09	1.02	1.07	922*AS36040E17
CSPH*3612AL*	1.07	1.08	98(6*B,7*MA)60060V21	CAP**2414AL*	1.05	1.12	1.05	1.08	922*AS36060E14
CSPH*4212AL*	1.06	1.07	98(6*B,7*MA)60060V21	CAP**3014AL*	1.03	1.10	1.03	1.05	922*AS36060E14
				CAP**3614AL*	1.03	1.09	1.02	1.03	922*AS36060E14
				CNPV*3014AL*	1.05	1.08	1.03	1.05	922*AS36060E14
				CSPH*2412AL*	1.05	1.10	1.04	1.07	922*AS36060E14
				CSPH*3012AL*	1.05	1.08	1.04	1.05	922*AS36060E14
				CSPH*3612AL*	1.03	1.06	1.02	1.01	922*AS36060E14
				CAP**2414AL*	1.07	1.16	1.05	1.14	925*AS30040E14
				CAP**3014AL*	1.05	1.14	1.02	1.11	925*AS30040E14
				CNPV*3014AL*	1.04	1.12	1.02	1.09	925*AS30040E14
				CNPV*3614AL*	1.05	1.14	1.02	1.11	925*AS30040E14
				CSPH*2412AL*	1.06	1.13	1.04	1.13	925*AS30040E14
				CSPH*3012AL*	1.05	1.10	1.04	1.11	925*AS30040E14
				CSPH*3612AL*	1.04	1.09	1.02	1.08	925*AS30040E14
				CAP**2417AL*	1.05	1.17	1.05	1.13	925*AS36040E17
				CAP**3017AL*	1.03	1.14	1.02	1.09	925*AS36040E17
				CNPV*3017AL*	1.03	1.14	1.02	1.08	925*AS36040E17
				CNPV*3617AL*	1.03	1.16	1.02	1.09	925*AS36040E17
				CNPV*4217AL*	1.03	1.16	1.02	1.09	925*AS36040E17
				CSPH*2412AL*	1.05	1.16	1.04	1.13	925*AS36040E17
				CSPH*3012AL*	1.04	1.13	1.04	1.10	925*AS36040E17
				CSPH*3612AL*	1.03	1.11	1.02	1.07	925*AS36040E17

See notes on page 44



# HEAT PUMP HEATING PERFORMANCE - EFFICIENCY MODE CONTINUED

288BNV036 / FE4ANF005 HEATING EFFICIENCY MODE - OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)

INDOOR AIR EDB °F (°C)	-3 (-19.4)			7 (-13.9)			17 (-8.3)			27 (-2.8)			
	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†	
65 (18.3)	N/A			N/A			1200	23.19	21.15	2.51	26.38	23.43	2.48
70 (21.1)								23.00	20.97	2.61	26.13	23.21	2.60
75 (23.9)								22.80	20.79	2.72	25.87	22.98	2.71
<b>STAGE 5</b>													
65 (18.3)	N/A			N/A			500	12.21	11.13	1.49	14.64	13.01	1.31
70 (21.1)								12.06	10.99	1.56	14.47	12.85	1.38
75 (23.9)								11.65	10.62	1.78	14.29	12.69	1.45
<b>STAGE 3</b>													
65 (18.3)	N/A			N/A			N/A						
70 (21.1)													
75 (23.9)													

INDOOR AIR EDB °F (°C)	37 (2.8)			47(8.3)			57 (13.9)			
	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		
		Total	Integ†		Total	Integ†		Total	Integ†	
65 (18.3)	1142	30.62	27.87	1200	34.60	34.60	900	22.19	22.19	1.38
70 (21.1)		30.29	27.56		34.20	34.20		21.81	21.81	1.47
75 (23.9)		29.94	27.24		33.79	33.79		21.45	21.45	1.56
<b>STAGE 5</b>										
65 (18.3)	900	17.02	15.49	900	19.45	19.45	900	9.16	9.16	0.42
70 (21.1)		16.79	15.28		19.17	19.17		8.95	8.95	0.47
75 (23.9)		16.57	15.08		18.89	18.89		8.74	8.74	0.52
<b>STAGE 3</b>										
65 (18.3)	N/A			700	7.88	7.88	700	7.88	7.88	0.44
70 (21.1)					7.70	7.70		7.70	7.70	0.49
75 (23.9)					7.52	7.52		7.52	7.52	0.53
<b>STAGE 1</b>										

See notes on page 44

HEAT PUMP HEATING PERFORMANCE - EFFICIENCY MODE CONTINUED

288BNV036

HEATING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4821AL*	1.02	1.03	98(6*B,7*A)60080V21
CSPH*3612AL*	1.02	1.05	98(6*B,7*A)60080V21
CSPH*4212AL*	1.02	1.04	98(6*B,7*A)60080V21
CSPH*4812AL*	1.02	1.03	98(6*B,7*A)60080V21
CAP**3621AL*	1.04	1.08	98(6*B,7*A)66100V21
CAP**4212AL*	1.04	1.07	98(6*B,7*A)66100V21
CAP**4821AL*	1.01	1.02	98(6*B,7*A)66100V21
CNPV*3621AL*	1.05	1.11	98(6*B,7*A)66100V21
CNPV*4212AL*	1.02	1.07	98(6*B,7*A)66100V21
CNPV*4821AL*	1.02	1.03	98(6*B,7*A)66100V21
CSPH*3612AL*	1.02	1.04	98(6*B,7*A)66100V21
CSPH*4212AL*	1.02	1.03	98(6*B,7*A)66100V21
CSPH*4812AL*	1.02	1.02	98(6*B,7*A)66100V21
CAP**4224AL*	1.04	1.07	98(6*B,7*A)66120V24
CAP**4824AL*	1.02	1.03	98(6*B,7*A)66120V24
CNPV*4824AL*	1.02	1.03	98(6*B,7*A)66120V24
CSPH*3612AL*	1.02	1.05	98(6*B,7*A)66120V24
CSPH*4212AL*	1.02	1.04	98(6*B,7*A)66120V24
CSPH*4812AL*	1.02	1.03	98(6*B,7*A)66120V24
CAP**3621AL*	1.04	1.10	98(6*B,7*MA)60060V21
CAP**4221AL*	1.04	1.09	98(6*B,7*MA)60060V21
CAP**4821AL*	1.02	1.05	98(6*B,7*MA)60060V21
CNPV*3621AL*	1.05	1.13	98(6*B,7*MA)60060V21
CNPV*4221AL*	1.05	1.10	98(6*B,7*MA)60060V21
CNPV*4821AL*	1.02	1.05	98(6*B,7*MA)60060V21
CSPH*3612AL*	1.04	1.07	98(6*B,7*MA)60060V21
CSPH*4212AL*	1.02	1.05	98(6*B,7*MA)60060V21
CSPH*4812AL*	1.02	1.05	98(6*B,7*MA)60060V21

2-STAGE (Hi-Stage 5, Lo-Stage 3)						
Heating Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	Furnace Model	
*FVACN(B,F)05L	1.00	1.00	1.00	1.00		
FVACN(B,F)003	1.01	1.06	1.01	1.05		
FV4CNF002L	1.04	1.08	1.04	1.08		
CAP**3614AL*	1.04	1.13	1.03	1.12	313*AV024045	
CSPH*3612AL*	1.04	1.08	1.03	1.09	313*AV024045	
CSPH*4212AL*	1.04	1.07	1.02	1.07	313*AV024045	
CSPH*4812AL*	1.04	1.07	1.02	1.06	313*AV024045	
CNPV*4217AL*	1.03	1.06	1.02	1.06	314AAV048070	
CAP**3617AL*	1.04	1.13	1.05	1.13	922*A36040E17	
CAP**4817AL*	1.02	1.07	1.01	1.07	922*A36040E17	
CNPV*3617AL*	1.04	1.14	1.03	1.13	922*A36040E17	
CNPV*4217AL*	1.04	1.10	1.03	1.10	922*A36040E17	
CSPH*3612AL*	1.04	1.08	1.03	1.10	922*A36040E17	
CSPH*4212AL*	1.04	1.08	1.02	1.08	922*A36040E17	
CSPH*4812AL*	1.03	1.10	1.03	1.10	922*A36060E14	
CAP**3614AL*	1.03	1.08	1.03	1.07	922*A36060E14	
CSPH*3612AL*	1.03	1.05	1.03	1.06	922*A36060E14	
CSPH*4212AL*	1.03	1.05	1.02	1.04	922*A36060E14	
CAP**3617AL*	1.03	1.08	1.02	1.08	922*A42060E17	
CAP**4817AL*	1.01	1.02	1.00	1.03	922*A42060E17	
CNPV*3617AL*	1.03	1.10	1.02	1.09	922*A42060E17	
CNPV*4217AL*	1.02	1.05	1.02	1.06	922*A42060E17	
CSPH*3612AL*	1.03	1.05	1.02	1.06	922*A42060E17	
CSPH*4212AL*	1.02	1.04	1.02	1.05	922*A42060E17	
CSPH*4812AL*	1.02	1.03	1.02	1.04	922*A42060E17	
CAP**3617AL*	1.02	1.08	1.02	1.08	922*A48080E17	
CAP**4817AL*	1.01	1.01	1.00	1.03	922*A48080E17	
CNPV*3617AL*	1.03	1.10	1.02	1.09	922*A48080E17	
CNPV*4217AL*	1.02	1.05	1.02	1.06	922*A48080E17	
CSPH*3612AL*	1.03	1.05	1.02	1.06	922*A48080E17	
CSPH*4212AL*	1.02	1.04	1.02	1.05	922*A48080E17	
CSPH*4812AL*	1.02	1.03	1.02	1.04	922*A48080E17	
CNPV*4217AL*	1.05	1.13	1.05	1.12	925*A36040E17	
CSPH*3612AL*	1.05	1.12	1.05	1.12	925*A36040E17	
CAP**3614AL*	1.05	1.16	1.03	1.13	925*A36060E14	
CSPH*3612AL*	1.05	1.12	1.03	1.11	925*A36060E14	
CSPH*4212AL*	1.05	1.11	1.03	1.10	925*A36060E14	
CSPH*4812AL*	1.04	1.10	1.03	1.09	925*A36060E14	
CAP**3617AL*	1.04	1.11	1.02	1.10	925*A42060E17	
CAP**4817AL*	1.01	1.04	1.00	1.05	925*A42060E17	
CNPV*3617AL*	1.04	1.12	1.03	1.12	925*A42060E17	
CNPV*4217AL*	1.03	1.08	1.02	1.08	925*A42060E17	
CSPH*3612AL*	1.03	1.07	1.02	1.08	925*A42060E17	
CSPH*4212AL*	1.03	1.06	1.02	1.07	925*A42060E17	
CSPH*4812AL*	1.03	1.05	1.02	1.06	925*A42060E17	

See notes on page 44

# HEAT PUMP HEATING PERFORMANCE - EFFICIENCY MODE CONTINUED

288BNV048 / FE4ANF005 HEATING EFFICIENCY MODE - OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		Total Sys KWt
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†	
<b>STAGE 5</b>																
65 (18.3)	N/A			N/A						1600						3.74
70 (21.1)																3.88
75 (23.9)																4.00
<b>STAGE 3</b>																
65 (18.3)	N/A									700						2.23
70 (21.1)																2.32
75 (23.9)																2.40
<b>STAGE 1</b>																
65 (18.3)	N/A									N/A						
70 (21.1)																
75 (23.9)																

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		Total Sys KWt
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†	
<b>STAGE 5</b>													
65 (18.3)	1600	46.03	41.89	4.01	51.04	51.04	4.13						
70 (21.1)		45.58	41.48	4.17	50.50	50.50	4.30						
75 (23.9)		45.11	41.05	4.34	49.95	49.95	4.48						
<b>STAGE 3</b>													
65 (18.3)	1275	27.80	25.30	2.27	31.75	31.75	2.34			1275			2.40
70 (21.1)		27.50	25.03	2.38	31.38	31.38	2.47						2.53
75 (23.9)		27.21	24.76	2.50	31.00	31.00	2.59						2.65
<b>STAGE 1</b>													
65 (18.3)	N/A									1000			0.86
70 (21.1)													0.94
75 (23.9)													1.02

See notes on page 44



# HEAT PUMP HEATING PERFORMANCE - COMFORT MODE

288BNV024 / FE4ANB006 HEATING COMFORT MODE - OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Total Sys KWh		ID SCFM	Capacity MBtuh		ID SCFM	Total Sys KWh		ID SCFM	Capacity MBtuh		Total Sys KWh
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†				
														7 (-13.9)		
65 (18.3)	N/A			N/A			523	19.53	17.81	622	21.30	18.92				2.18
70 (21.1)								19.33	17.62		21.06	18.71				2.28
75 (23.9)								19.12	17.43		20.83	18.50				2.38
STAGE 5																
65 (18.3)	N/A			N/A			384	11.03	10.06	449	12.59	11.18				1.33
70 (21.1)								10.89	9.93		12.39	11.01				1.39
75 (23.9)								10.74	9.79		12.20	10.84				1.46
STAGE 3																
65 (18.3)	N/A			N/A			N/A			N/A						
70 (21.1)																
75 (23.9)																
STAGE 1 - ALL OTHER COILS																
65 (18.3)	N/A			N/A			N/A			N/A						
70 (21.1)																
75 (23.9)																
STAGE 1 - FE4ANF005 ONLY																
STAGE 1 - ALL OTHER COILS																
65 (18.3)	N/A			N/A			N/A			N/A						
70 (21.1)																
75 (23.9)																

INDOOR AIR EDB °F (°C)	ID SCFM	Capacity MBtuh		ID SCFM	Total Sys KWh		ID SCFM	Capacity MBtuh		ID SCFM	Total Sys KWh		ID SCFM	Capacity MBtuh		Total Sys KWh
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†				
														47(8.3)		
65 (18.3)	721	23.60	21.47	819	2.09	1.98	25.55	25.55	819	17.81	17.81	1.23				1.31
70 (21.1)		23.29	21.20		2.19	2.07	25.12	25.12		N/A	17.52	17.52	1.31			1.31
75 (23.9)		22.99	20.92		2.28	2.16	24.77	24.77			17.17	17.17	1.38			1.38
STAGE 5																
65 (18.3)	514	14.33	13.04	579	1.31	1.25	16.09	16.09	579	605	17.81	17.81	1.23			1.23
70 (21.1)		14.13	12.86		1.37	1.32	15.83	15.83			17.52	17.52	1.31			1.31
75 (23.9)		13.93	12.67		1.44	1.39	15.56	15.56			17.17	17.17	1.38			1.38
STAGE 3																
65 (18.3)	N/A			250	0.61	0.61	6.73	6.73	250	261	8.01	8.01	0.62			0.62
70 (21.1)					0.64	0.64	6.54	6.54			7.82	7.82	0.67			0.67
75 (23.9)					0.68	0.68	6.37	6.37			7.61	7.61	0.71			0.71
STAGE 1 - FE4ANF005 ONLY																
STAGE 1 - ALL OTHER COILS																
65 (18.3)	N/A			243	0.61	0.61	6.67	6.67	243	261	8.01	8.01	0.62			0.62
70 (21.1)					0.65	0.65	6.50	6.50			7.81	7.81	0.67			0.67
75 (23.9)					0.69	0.69	6.32	6.32			7.60	7.60	0.71			0.71

See notes on page 44

HEAT PUMP HEATING PERFORMANCE - COMFORT MODE CONTINUED

288BNV024

HEATING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL	2-STAGE (Hi-Stage 5, Lo-Stage 3)				Furnace Model	
				Heating Indoor Model	High Speed Cap.	Power	Low Speed Cap.		Power
*FE4ANI(B)F005L	1.00	1.00		FVACN(B)F003	0.84	0.92	0.77	0.82	
FE4ANIB(F)003	1.00	1.02		FV4CNF002L	0.84	0.90	0.77	0.81	
FE4ANF002L	1.04	1.06		CAP**2414AL*	0.84	0.92	1.05	1.12	313*AV024045
CAP**3614AL*	1.03	1.06	315(A,J)AV036070	CAP**3014AL*	0.84	0.92	1.03	1.09	313*AV024045
CSPH*3612AL*	1.02	1.02	315(A,J)AV036070	CAP**3614AL*	0.84	0.91	1.02	1.07	313*AV024045
CSPH*4212AL*	1.01	1.01	315(A,J)AV036070	CSPH*2412AL*	0.84	0.91	1.04	1.11	313*AV024045
CAP**3617AL*	1.02	1.05	315(A,J)AV048090	CSPH*3012AL*	0.84	0.88	1.04	1.08	313*AV024045
CNPV*3617AL*	1.03	1.06	315(A,J)AV048090	CSPH*3612AL*	0.84	0.88	1.02	1.05	313*AV024045
CNPV*4217AL*	1.02	1.02	315(A,J)AV048090	CAP**2414AL*	0.84	0.93	1.05	1.15	922*AS0040E14
CSPH*3612AL*	1.02	1.02	315(A,J)AV048090	CAP**3014AL*	0.84	0.93	1.02	1.11	922*AS0040E14
CSPH*4212AL*	1.01	1.00	315(A,J)AV048090	CAP**3614AL*	0.84	0.92	1.02	1.10	922*AS0040E14
CAP**3617AL*	1.03	1.07	98(6*B,7*A)42060V17	CNPV*3014AL*	0.84	0.90	1.02	1.11	922*AS0040E14
CNPV*3617AL*	1.04	1.08	98(6*B,7*A)42060V17	CSPH*2412AL*	0.84	0.92	1.04	1.13	922*AS0040E14
CNPV*4217AL*	1.02	1.04	98(6*B,7*A)42060V17	CSPH*3012AL*	0.84	0.90	1.04	1.11	922*AS0040E14
CSPH*3612AL*	1.02	1.04	98(6*B,7*A)42060V17	CSPH*3612AL*	0.84	0.89	1.02	1.08	922*AS0040E14
CSPH*4212AL*	1.02	1.03	98(6*B,7*A)42060V17	CAP**2417AL*	0.84	0.92	1.05	1.14	922*AS6040E17
CAP**3617AL*	1.03	1.06	98(6*B,7*A)42060V17	CAP**3017AL*	0.84	0.92	1.02	1.11	922*AS6040E17
CNPV*3617AL*	1.04	1.08	98(6*B,7*A)42060V17	CAP**3617AL*	0.84	0.92	1.02	1.10	922*AS6040E17
CNPV*4217AL*	1.02	1.04	98(6*B,7*A)42060V17	CNPV*3017AL*	0.84	0.93	1.02	1.11	922*AS6040E17
CSPH*3612AL*	1.02	1.02	98(6*B,7*A)42060V17	CNPV*3617AL*	0.84	0.93	1.02	1.11	922*AS6040E17
CSPH*4212AL*	1.04	1.07	98(6*B,7*A)60060V21	CNPV*4217AL*	0.84	0.90	1.02	1.09	922*AS6040E17
CAP**3621AL*	1.03	1.06	98(6*B,7MA)60060V21	CSPH*2412AL*	0.84	0.92	1.04	1.15	922*AS6040E17
CNPV*3621AL*	1.04	1.08	98(6*B,7MA)60060V21	CSPH*3012AL*	0.84	0.90	1.03	1.11	922*AS6040E17
CNPV*4221AL*	1.03	1.06	98(6*B,7MA)60060V21	CSPH*3612AL*	0.84	0.90	1.02	1.09	922*AS6040E17
CSPH*3612AL*	1.02	1.04	98(6*B,7MA)60060V21	CAP**2414AL*	0.84	0.91	1.05	1.10	922*AS6060E14
CSPH*4212AL*	1.02	1.02	98(6*B,7MA)60060V21	CAP**3014AL*	0.84	0.90	1.03	1.07	922*AS6060E14
				CAP**3614AL*	0.84	0.89	1.02	1.05	922*AS6060E14
				CNPV*3014AL*	0.84	0.88	1.03	1.07	922*AS6060E14
				CNPV*3614AL*	0.84	0.88	1.03	1.07	922*AS6060E14
				CSPH*2412AL*	0.84	0.89	1.04	1.09	922*AS6060E14
				CSPH*3012AL*	0.84	0.87	1.04	1.06	922*AS6060E14
				CSPH*3612AL*	0.84	0.87	1.02	1.03	922*AS6060E14
				CAP**2414AL*	0.84	0.92	1.05	1.16	925*AS0040E14
				CAP**3014AL*	0.84	0.92	1.02	1.12	925*AS0040E14
				CAP**3614AL*	0.84	0.92	1.02	1.11	925*AS0040E14
				CNPV*3014AL*	0.84	0.93	1.02	1.12	925*AS0040E14
				CNPV*3614AL*	0.84	0.93	1.02	1.12	925*AS0040E14
				CNPV*4214AL*	0.84	0.91	1.04	1.15	925*AS0040E14
				CSPH*3012AL*	0.84	0.89	1.04	1.13	925*AS0040E14
				CSPH*3612AL*	0.84	0.89	1.02	1.10	925*AS0040E14
				CAP**2417AL*	0.84	0.95	1.05	1.15	925*AS6040E17
				CAP**3017AL*	0.84	0.94	1.02	1.11	925*AS6040E17
				CAP**3617AL*	0.84	0.93	1.02	1.10	925*AS6040E17
				CNPV*3017AL*	0.84	0.95	1.02	1.11	925*AS6040E17
				CNPV*3617AL*	0.84	0.95	1.02	1.11	925*AS6040E17
				CNPV*4217AL*	0.84	0.92	1.02	1.09	925*AS6040E17
				CSPH*2412AL*	0.84	0.94	1.04	1.15	925*AS6040E17
				CSPH*3012AL*	0.84	0.92	1.04	1.12	925*AS6040E17
				CSPH*3612AL*	0.84	0.92	1.02	1.09	925*AS6040E17

See notes on page 44

# HEAT PUMP HEATING PERFORMANCE - COMFORT MODE CONTINUED

288BNV025 / FE4ANF005 HEATING COMFORT MODE – OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)

INDOOR AIR EDB °F (°C)	-3 (-19.4)			7 (-13.9)			17 (-8.3)			27 (-2.8)			
	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†	
65 (18.3)	N/A												
70 (21.1)													
75 (23.9)													
STAGE 5													
65 (18.3)	N/A												
70 (21.1)													
75 (23.9)													
STAGE 3													
65 (18.3)	N/A												
70 (21.1)													
75 (23.9)													
STAGE 1 – FE4ANF005 ONLY													
65 (18.3)	N/A												
70 (21.1)													
75 (23.9)													
STAGE 1 – ALL OTHER COILS													
65 (18.3)	N/A												
70 (21.1)													
75 (23.9)													

INDOOR AIR EDB °F (°C)	37 (2.8)			47(8.3)			57 (13.9)					
	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh				
		Total	Integ†		Total	Integ†		Total	Integ†			
65 (18.3)	721	24.68	22.46	27.39	27.39	2.12						
70 (21.1)		24.36	22.16	26.93	26.93	2.22						
75 (23.9)		24.04	21.87	26.55	26.55	2.32						
STAGE 5												
65 (18.3)	514	14.76	13.43	16.82	16.82	1.30						
70 (21.1)		14.55	13.24	16.55	16.55	1.37						
75 (23.9)		14.34	13.05	16.26	16.26	1.44						
STAGE 3												
65 (18.3)	N/A											
70 (21.1)												
75 (23.9)												
STAGE 1 – FE4ANF005 ONLY												
65 (18.3)	N/A											
70 (21.1)												
75 (23.9)												
STAGE 1 – ALL OTHER COILS												
65 (18.3)	N/A											
70 (21.1)												
75 (23.9)												

See notes on page 44

HEAT PUMP HEATING PERFORMANCE - COMFORT MODE CONTINUED

288BNV025

HEATING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL	2-STAGE (Hi-Stage 5, Lo-Stage 3)					Furnace Model
				Heating Indoor Model	High Speed Cap.	Power	Low Speed Cap.	Power	
*FE4ANI(B,F)005L	1.00	1.00		FV4CN(B,F)003	1.01	1.09	1.01	1.00	
FE4ANI(B,F)003	1.04	1.07		FV4CNF002L	1.03	1.09	1.01	1.05	
FE4ANF002L	1.08	1.10		CAP**24144L*	1.05	1.14	1.05	1.10	313*AV024045
CAP**36144L*	1.07	1.11	315(A,J)AV036070	CAP**30144L*	1.03	1.12	1.03	1.07	313*AV024045
CSPH*3612AL*	1.06	1.07	315(A,J)AV036070	CAP**36144L*	1.03	1.10	1.02	1.05	313*AV024045
CSPH*4212AL*	1.05	1.05	315(A,J)AV036070	CSPH*2412AL*	1.05	1.12	1.04	1.09	313*AV024045
CAP**3617AL*	1.07	1.09	315(A,J)AV048090	CSPH*3012AL*	1.05	1.09	1.04	1.07	313*AV024045
CNPV*3617AL*	1.07	1.10	315(A,J)AV048090	CSPH*3612AL*	1.03	1.06	1.02	1.04	313*AV024045
CSPH*3612AL*	1.06	1.06	315(A,J)AV048090	CAP**24144L*	1.05	1.15	1.05	1.13	922*AS30040E14
CSPH*4212AL*	1.05	1.05	315(A,J)AV048090	CAP**30144L*	1.03	1.13	1.02	1.09	922*AS30040E14
CAP**3617AL*	1.07	1.11	98(6*B,7*A)42060V17	CAP**36144L*	1.03	1.12	1.02	1.08	922*AS30040E14
CNPV*3617AL*	1.08	1.13	98(6*B,7*A)42060V17	CNPV*3014AL*	1.05	1.11	1.02	1.09	922*AS30040E14
CNPV*4217AL*	1.07	1.09	98(6*B,7*A)42060V17	CSPH*2412AL*	1.05	1.13	1.04	1.11	922*AS30040E14
CSPH*3612AL*	1.07	1.09	98(6*B,7*A)42060V17	CSPH*3012AL*	1.04	1.10	1.04	1.09	922*AS30040E14
CSPH*4212AL*	1.06	1.07	98(6*B,7*A)42060V17	CAP**3017AL*	1.03	1.08	1.02	1.06	922*AS30040E14
CAP**3617AL*	1.07	1.11	98(6*B,7*A)42080V17	CAP**2417AL*	1.05	1.14	1.05	1.13	922*AS36040E17
CNPV*3617AL*	1.08	1.12	98(6*B,7*A)42080V17	CAP**3617AL*	1.03	1.12	1.02	1.08	922*AS36040E17
CNPV*4217AL*	1.07	1.08	98(6*B,7*A)42080V17	CNPV*3017AL*	1.03	1.14	1.02	1.09	922*AS36040E17
CSPH*3612AL*	1.07	1.08	98(6*B,7*A)42080V17	CNPV*3617AL*	1.03	1.14	1.02	1.09	922*AS36040E17
CSPH*4212AL*	1.06	1.07	98(6*B,7*A)42080V17	CNPV*4217AL*	1.03	1.09	1.02	1.06	922*AS36040E17
CNPV*3621AL*	1.07	1.11	98(6*B,7*MA)60060V21	CSPH*2412AL*	1.05	1.14	1.04	1.13	922*AS36040E17
CNPV*3621AL*	1.08	1.12	98(6*B,7*MA)60060V21	CSPH*3012AL*	1.04	1.10	1.03	1.09	922*AS36040E17
CNPV*4221AL*	1.07	1.10	98(6*B,7*MA)60060V21	CSPH*3612AL*	1.03	1.09	1.02	1.07	922*AS36040E17
CSPH*3612AL*	1.07	1.08	98(6*B,7*MA)60060V21	CAP**2414AL*	1.05	1.12	1.05	1.08	922*AS36060E14
CSPH*4212AL*	1.06	1.07	98(6*B,7*MA)60060V21	CAP**3014AL*	1.03	1.10	1.03	1.05	922*AS36060E14
				CAP**3614AL*	1.03	1.09	1.02	1.03	922*AS36060E14
				CNPV*3014AL*	1.05	1.08	1.03	1.05	922*AS36060E14
				CSPH*2412AL*	1.05	1.10	1.04	1.07	922*AS36060E14
				CSPH*3012AL*	1.05	1.08	1.04	1.05	922*AS36060E14
				CSPH*3612AL*	1.03	1.06	1.02	1.01	922*AS36060E14
				CAP**2414AL*	1.07	1.16	1.05	1.14	925*AS30040E14
				CAP**3014AL*	1.05	1.14	1.02	1.11	925*AS30040E14
				CNPV*3014AL*	1.04	1.12	1.02	1.09	925*AS30040E14
				CSPH*2412AL*	1.05	1.14	1.02	1.11	925*AS30040E14
				CSPH*3012AL*	1.05	1.14	1.02	1.11	925*AS30040E14
				CSPH*3612AL*	1.06	1.13	1.04	1.13	925*AS30040E14
				CAP**2417AL*	1.05	1.10	1.04	1.11	925*AS30040E14
				CSPH*3612AL*	1.04	1.09	1.02	1.08	925*AS30040E14
				CAP**2417AL*	1.05	1.17	1.05	1.13	925*AS36040E17
				CNPV*3017AL*	1.03	1.14	1.02	1.09	925*AS36040E17
				CSPH*3017AL*	1.03	1.14	1.02	1.08	925*AS36040E17
				CAP**3617AL*	1.03	1.14	1.02	1.09	925*AS36040E17
				CNPV*3017AL*	1.03	1.16	1.02	1.09	925*AS36040E17
				CSPH*3617AL*	1.03	1.16	1.02	1.09	925*AS36040E17
				CNPV*4217AL*	1.03	1.12	1.02	1.07	925*AS36040E17
				CSPH*2412AL*	1.05	1.16	1.04	1.13	925*AS36040E17
				CSPH*3012AL*	1.04	1.13	1.04	1.10	925*AS36040E17
				CSPH*3612AL*	1.03	1.11	1.02	1.07	925*AS36040E17

See notes on page 44



# HEAT PUMP HEATING PERFORMANCE - COMFORT MODE CONTINUED

288BNV036 / FE4ANF005 HEATING COMFORT MODE - OUTDOOR COIL ENTERING AIR TEMPERATURES °F (°C)

INDOOR AIR EDB °F (°C)	-3 (-19.4)			7 (-13.9)			17 (-8.3)			27 (-2.8)				
	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh			
		Total	Integ†		Total	Integ†		Total	Integ†		Total	Integ†		
65 (18.3)	N/A			N/A			595			734				
70 (21.1)														
75 (23.9)														
STAGE 5														
65 (18.3)	N/A			277			325			425				
70 (21.1)														
75 (23.9)														
STAGE 3														
65 (18.3)	N/A			N/A			N/A			N/A				
70 (21.1)														
75 (23.9)														
STAGE 1 - ALL OTHER COILS														
65 (18.3)	N/A			N/A			N/A			N/A				
70 (21.1)														
75 (23.9)														
STAGE 1 - FE4ANF005 ONLY														
STAGE 1 - ALL OTHER COILS														
65 (18.3)	N/A			N/A			N/A			N/A				
70 (21.1)														
75 (23.9)														

INDOOR AIR EDB °F (°C)	37 (2.8)			47(8.3)			57 (13.9)							
	ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh		ID SCFM	Capacity MBtuh						
		Total	Integ†		Total	Integ†		Total	Integ†					
65 (18.3)	874			1014			N/A			N/A				
70 (21.1)														
75 (23.9)														
STAGE 5														
65 (18.3)	526			626			737			737				
70 (21.1)														
75 (23.9)														
STAGE 3														
65 (18.3)	N/A			250			250			250				
70 (21.1)														
75 (23.9)														
STAGE 1 - FE4ANF005 ONLY														
65 (18.3)	N/A			199			217			217				
70 (21.1)														
75 (23.9)														
STAGE 1 - ALL OTHER COILS														
65 (18.3)	N/A			199			217			217				
70 (21.1)														
75 (23.9)														

See notes on page 44



# HEAT PUMP HEATING PERFORMANCE - COMFORT MODE CONTINUED

INDOOR AIR		-3 (-19.4)			7 (-13.9)			17 (-8.3)			27 (-2.8)		
		ID SCFM	Capacity MBtuh Total	Integtt	Total Sys KWt	ID SCFM	Capacity MBtuh Total	Integtt	Total Sys KWt	ID SCFM	Capacity MBtuh Total	Integtt	Total Sys KWt
EDB ° F (° C)													
65 (18.3)	N/A												
70 (21.1)	N/A												
75 (23.9)	N/A												
<b>STAGE 5</b>													
65 (18.3)	N/A												
70 (21.1)	N/A												
75 (23.9)	N/A												
<b>STAGE 3</b>													
65 (18.3)	N/A												
70 (21.1)	N/A												
75 (23.9)	N/A												
<b>STAGE 1</b>													
65 (18.3)	N/A												
70 (21.1)	N/A												
75 (23.9)	N/A												

INDOOR AIR		37 (2.8)			47(8.3)			57 (13.9)					
		ID SCFM	Capacity MBtuh Total	Integtt	Total Sys KWt	ID SCFM	Capacity MBtuh Total	Integtt	Total Sys KWt	ID SCFM	Capacity MBtuh Total	Integtt	Total Sys KWt
EDB ° F (° C)													
65 (18.3)	1344	45.56	41.46	4.00	50.90	50.90	4.12						
70 (21.1)		45.09	41.03	4.16	50.36	50.36	4.29						
75 (23.9)		44.60	40.58	4.32	49.82	49.82	4.47						
<b>STAGE 5</b>													
65 (18.3)	814	27.39	24.93	2.39	31.24	31.24	2.45						
70 (21.1)		27.09	24.65	2.51	30.85	30.85	2.57						
75 (23.9)		26.77	24.36	2.62	30.47	30.47	2.69						
<b>STAGE 3</b>													
65 (18.3)	N/A												
70 (21.1)	N/A												
75 (23.9)	N/A												
<b>STAGE 1</b>													
65 (18.3)													
70 (21.1)													
75 (23.9)													

See notes on page 44



**GENERAL**

**System Description**

Outdoor-mounted, air-cooled, split-system heat pump unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, forward-swept blade propeller-type condenser fan, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

**Quality Assurance**

- Unit will be rated in accordance with the latest edition of AHRI Standard 240.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have C-UL approval.
- Unit cabinet will be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- Air-cooled condenser coils are pressure tested and the outdoor units are leak tested.
- Unit constructed in ISO9001 approved facility.

**Delivery, Storage, and Handling**

- Unit will be shipped as single package only and is stored and handled per unit manufacturer’s recommendations.

**Warranty (for inclusion by specifying engineer)**

- U.S. and Canada only.

**PRODUCTS**

**Equipment**

- Factory-assembled, single-piece, air-cooled heat pump unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge Puron® (R-410A) refrigerant, and special features required prior to field start-up.

**Unit Cabinet**

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.

**Fans**

- Condenser fan will be direct-drive propeller type, forward swept blade, discharging air upward.

- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated.
- Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

**Compressor**

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.
- Compressor will be covered with a sound absorbing blanket.

**Condenser Coil**

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated, and sealed.

**Refrigeration Components**

- Refrigeration circuit components will include liquid-line front-seating shutoff valve with sweat connections, vapor-line front-seating shutoff valve with sweat connections, system charge of Puron® (R-410A) refrigerant, POE compressor oil, accumulator, charge compensator, electronic expansion valve, and reversing valve.
- Unit will be equipped with high-pressure switch, suction pressure transducer, and filter drier for Puron® refrigerant.

**Operating Characteristics**

- The capacity of the unit will meet or exceed \_\_\_\_\_ Btuh at a suction temperature of \_\_\_\_\_ °F (°C). The power consumption at full load will not exceed \_\_\_\_\_ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of \_\_\_\_\_ Btuh or greater at conditions of \_\_\_\_\_ CFM entering air temperature at the evaporator at \_\_\_\_\_ °F (°C) wet bulb and \_\_\_\_\_ °F (°C) dry bulb, and air entering the unit at \_\_\_\_\_ °F (°C).
- The system will have a SEER of \_\_\_\_\_ Btuh/watt or greater at DOE conditions.

**Electrical Requirements**

- Nominal unit electrical characteristics will be \_\_\_\_\_ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of \_\_\_\_\_ v to \_\_\_\_\_ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.
- Compliant with IEC 61000-4-5 Transient Surge Requirement.

**Special Features**

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.
- Evolution Connex control with appropriate software version is required for full featured operation.

**288BNV**

## SYSTEM DESIGN SUMMARY

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. This product is not qualified for low ambient cooling operation.  
Minimum cooling outdoor operating temperatures:
  - Communicating systems: 40°F (4.44°C)
  - Non-communicating systems: 55°F (12.8°C)
3. The maximum outdoor operating ambient in cooling mode is 115°F (46.11°C).
4. Minimum outdoor operating air temperature for heating mode is 10°F (-12.2°C).
5. Maximum outdoor operating air temperature for heating mode is 66°F (18.9°C).
6. For reliable operation, unit should be level in all horizontal planes.
7. This unit is qualified for up to 100 ft (30.5 m) equivalent length of line set without additional accessories.
8. If any refrigerant tubing is buried, provide a 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. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
9. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
10. Do not apply capillary tube indoor coils to these units.
11. Puron refrigerant TXV required on indoor coil.

288BNV