

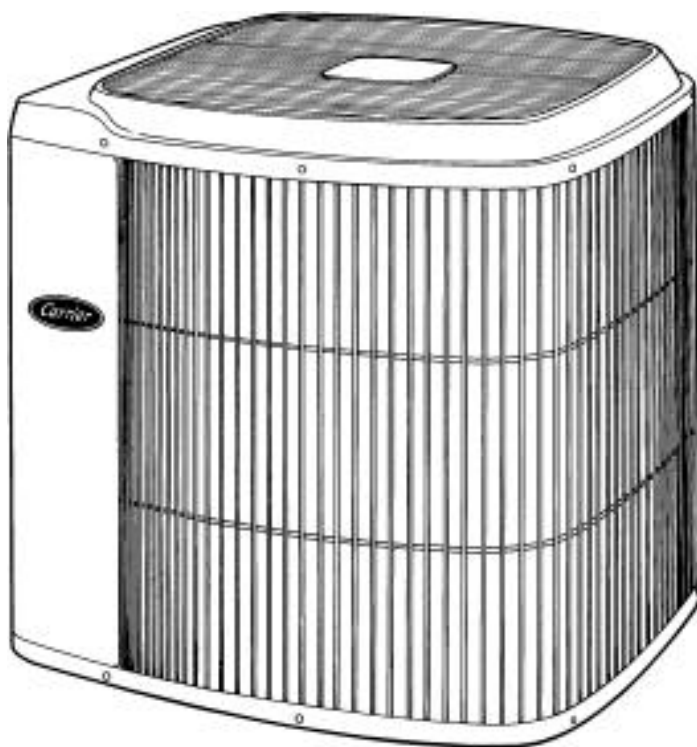


Product Data

38YRA (60Hz) Heat Pump

Sizes 024 thru 060

INTRODUCING TECH2000 SILENCER SYSTEM



The 38YRA Outdoor Sections of Split-System Heat Pumps are designed for quiet, reliable heating during the winter and cooling during the summer. These heat pump systems provide economy of operation through energy conservation with SEER up to 14.0 and HSPF up to 9.0. They recover heat for indoor comfort from outdoor air during the heating season and, by automatically reversing the refrigerant system, remove indoor heat and excess humidity during the cooling season. All models are 208/230v, single phase, 60 hertz, and are listed with ARI, UL, c-UL, and CEC.

INTRODUCING CARRIER'S TECH2000 SILENCER SYSTEM

The Silencer System features the InViroFlow design, energy-efficient fan and motor, sound hood, and discharge muffler.

InViroFlow Design improves airflow pattern and requires less energy.

Energy-Efficient Fan and Fan Motor adds to quiet operation while moving air more efficiently.

Sound Hood muffles noise from operation.

Discharge Muffler minimizes low frequency sound and pressure pulsation generated by compressor discharge gas.

FEATURES/BENEFITS

Compressor—This unit features a scroll compressor. This compressor is significantly more efficient than conventional compressors. Its simple design offers improved reliability.

Each compressor is mounted on rubber isolators for additional sound reduction. The scroll compressor will start under most system loads, thus eliminating the need for start assistance components. For improved serviceability, the 024 through 042 models are equipped with a compressor terminal plug. Continuous operation is approved down to -30°F (-34.4°C) in the heating mode and down to 55°F (12.8°C) in the cooling mode. (See heating and cooling performance tables.) The scroll compressor is covered with a standard 10-year limited warranty.

Built-In-Reliability Components — Includes a suction tube accumulator that minimizes the amount of liquid refrigerant that reaches the compressor; high-pressure switch for high-pressure protection; and a low-pressure switch for loss of charge protection.

Defrost Control Board— Incorporates a built-in 5-minute compressor time-delay relay, defrost relay, defrost timer, and low-voltage terminal board. The defrost control is a time/temperature initiation/termination control which includes 3 field-selectable time periods of 30, 50, and 90 minutes.

Weather-Protective Cabinet—Steel is protected with a heavy coating commonly called “galvanizing,” and coated with a layer of zinc phosphate. A coat of modified polyester powder coating is then applied and baked-on, providing each unit with a hard, smooth finish that will last for many years.

All screws on cabinet exterior are coated for a long-lasting, rust-resistant, quality appearance.

Unit Design—All units are equipped with totally enclosed fan motors for

greater reliability under rain and snow conditions. The large, wraparound coil uses copper tube and enhanced sine wave aluminum fin and is designed for optimum heat transfer during heating and cooling. The vertical air discharge carries the sound and air up and away from adjacent patio areas and foliage. Rows of composite coils can be cleaned with a common garden hose.

External Service Valves—Both service valves are brass, back seating type with sweat connections. Each valve has a service port for ease of checking operating refrigerant pressures. The suction service port provides for ease of checking operating pressure in the heating mode.

Warranty—Standard 1 year on all parts, with an additional 9 years on the compressor.

Model number nomenclature





CERTIFICATION APPLIES ONLY
WHEN USED WITH PROPER
COMPONENTS AS LISTED
WITH ARI

Physical data

UNIT SIZE	024-30	030-30, -31	036-30, -31	042-30, -31	048-30	060-30
OPERATING WT (lb)	205	233	223	243	277	352
COMPRESSOR TYPE	Scroll					
REFRIGERANT	R22					
Control	TXV (Cooling)					
Charge (lb)†	5.63	8.88	7.13	10.88	11.88	14.88
COND FAN	Propeller Type, Direct Drive					
Air Discharge	Vertical					
Air Qty (CFM)	2000	2400	2800	2400	2800	3600
Mtr Rpm (60 Hz)	800			825		820
COND COIL						
Face Area (sq ft)	15.15		18.18	15.15	18.18	24.89
CONNECT (in. ID)	Sweat					
Vapor	3/4			7/8		
Liquid				3/8		
REFRIG TUBES*						
(in. OD)						
Vapor	3/4			7/8		1-1/8
Liquid				3/8		

* Tube sizes are for runs up to 50 ft. For tube set over 50 ft, consult Long-Line Application Guideline.

† Charge quantity is for 15 ft of interconnecting tubing. For tubing lengths other than 15 ft, see Long-Line Application Guideline for additional refrigerant requirements.

NOTE: See unit Installation Instructions for proper installation.

METERING DEVICE

UNIT SIZE	SERIES	OUTDOOR PISTON	INDOOR TXV*
024	30	49	KHATX1001HSO
030	30, 31	52	KHATX1101HSO
036	30, 31	59	KHATX1201HSO
042	30, 31	63	KHATX1201HSO
048	30	70	KHATX1301HSO
060	30	73	KHATX1401HSO

* TXV must be ordered separately when indoor coil is not equipped with a TXV. TXV listed is for any approved coil combination. All TXV's are bi-flow, hard shut-off.

Accessories

ORDERING NUMBER	DESCRIPTION
KAATD0101TDR	Time-Delay Relay
KAAFT0101AAA*	Evaporator Freeze Thermostat*
KHAIR0101AAA*	Isolation Relay*
Standard	Cycle Protector
N/A	Start Assist—PTC
N/A	Start Capacitor and Relay
KAACH1201AAA	Crankcase Heater
Standard	Sound Hood
KHAOT0301FST	Outdoor Thermostat
KHAOT0201SEC	Secondary Outdoor Thermostat
KHASA0101AAA	Service Alarm†
KHAIC0101AAA	Interface Control (Optimizer II)
KHAIC0201AAA	Interface Control (Outdoor Thermostat/Lockout Relay)
KHATX1001HSO	Bi-flow TXV (Hard Shut-off)—Size 024‡
KHATX1101HSO	Bi-flow TXV (Hard Shut-off)—Size 030‡
KHATX1201HSO	Bi-flow TXV (Hard Shut-off)—Sizes 036, 042‡
KHATX1301HSO	Bi-flow TXV (Hard Shut-off)—Size 048‡
KHATX1401HSO	Bi-flow TXV (Hard Shut-off)—Size 060‡
Standard	Low-Pressure Switch
Standard	High-Pressure Switch
P504-8083S	Filter Drier—Bi-flow—Sizes 024–036
P504-8163S	Filter Drier—Bi-flow—Sizes 042–060
P251-0083	Low-Ambient Controller
KHALS0101LLS	Liquid Solenoid Valve
KSASF0101AAA	Support Feet—4 in.
KHASS0206MPK	Snow Rack—Sizes 024–048
KHASS0306MPK	Snow Rack—Size 060

* Use with low-ambient controller.

† For indicator light function, thermostat specified must be used and wired according to service alarm Installation Instructions.

‡ Must be applied on coils not equipped with TXV.

N/A—Not Applicable

THERMOSTAT/SUBBASE PKG	DESCRIPTION
--HH--07AT-175	Thermostat, 2-Stage Heat, 1-Stage Cool, Auto/Manual Changeover—°F
--HH--93AZ-195	Subbase for Manual Changeover Thermostat
--HH--93AZ-196	Subbase for Auto Changeover Thermostat
1F92-071 (RCD)	Thermostat (1 Piece) Night Setback, 2-Stage Heat, 1-Stage Cool—°F/°C Option 5-2 Day Programmable

Accessory Description and Usage

1. Evaporator Freeze Thermostat

A SPST temperature actuated switch which stops unit operation when evaporator reaches freeze-up conditions.

SUGGESTED USE: With low-ambient controller.

2. Isolation Relay

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

SUGGESTED USE: All heat pump systems where low-ambient controller has been added.

3. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes chance of refrigerant slugging. May or may not include a thermostat control.

SUGGESTED USE: When interconnecting tube length exceeds 50 ft.

When unit will be operated below 55°F (12.8°C) outdoor air temperature. (Use with low-ambient controller.)

All commercial installations.

4. Outdoor Thermostat

A SPDT temperature actuated switch which turns on supplemental electric heaters when outdoor air temperature drops below set point.

SUGGESTED USE: Heat pump installations with multiple-stage supplemental heaters.

5. Secondary Outdoor Thermostat

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

SUGGESTED USE: Heat pump installations where 3-stage operation of supplemental heaters is desired.

6. Service Alarm

A current-sensing lockout relay which provides immediate notification that compressor is not operating during a call for heating or cooling. Used with proper room thermostat, the thermostat light is turned on signifying service is required. This can minimize electrical cost increase due to operation of supplemental heaters only.

SUGGESTED USE: As a feature to notify owner immediately when the system is not operating most efficiently.

7. Interface Control

An electric control for controlling a heat pump and gas or oil furnace system for maximum energy savings. It allows heat pump to operate down to a predetermined economic balance point temperature, then switches to allow furnace operation only below that temperature. KHAIC0101AAA requires outdoor thermostat (Item 4) to be adjusted for economic balance point temperature.

SUGGESTED USE: Required for all heat pump and gas- or oil-fired furnace combination systems.

8. Thermostatic Expansion Valve (TXV)

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

Kit includes valve, adapter tubes, external equalizer tube.

SUGGESTED USE: Required for proper system performance. (Refer to ARI Unitary Directory.)

9. Filter Drier—Bi-flow

A device for removing contaminants from refrigerant circulating in a heat pump system; 2-direction flow for heat pumps.

SUGGESTED USE: Split-system heat pumps.

10. Support Feet

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

SUGGESTED USE: Coastal installations.

Windy areas or where debris is normally circulating.

Rooftop installations.

11. Snow Rack

Coated wire rack which supports unit 18 in. above mounting pad to allow for drainage from unit base.

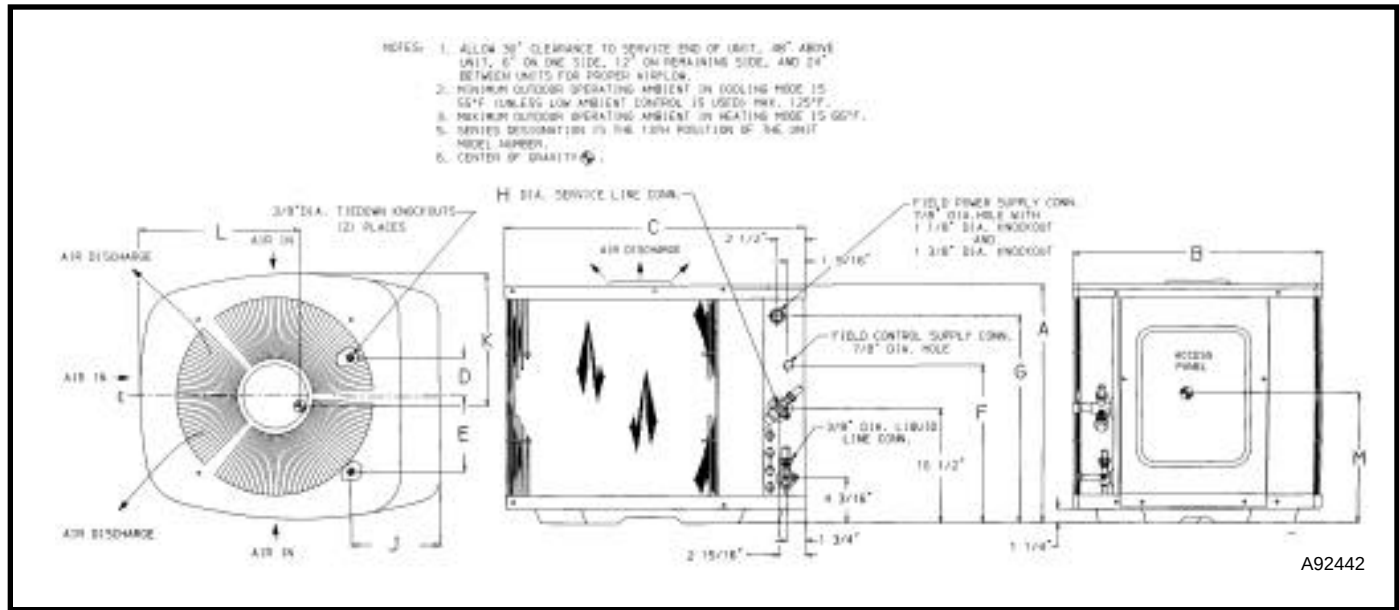
SUGGESTED USE: Heat pump installations in heavy snowfall areas.

Heat pump installations in snowdrift locations.

Heat pump installations in areas of prolonged subfreezing temperatures.

All commercial installations.

Dimensions



UNIT SIZE	SERIES	A In.	B In.	C In.	D In.	E In.	F In.	G In.	H In.	J In.	K In.	L In.	M In.
24	0	33-13/16	30	34-15/16	4	9-3/4	21-1/2	27-7/8	3/4	8-3/16	16-13/16	20-1/2	14
030	0, 1	33-13/16	30	34-15/16	4	9-3/4	21-1/2	27-7/8	3/4	8-3/16	16-1/2	20-3/8	15
036	0, 1	39-13/16	30	34-15/16	4	9-3/4	21-1/2	33-7/8	7/8	8-3/16	16-1/2	20-3/8	16
042	0, 1	33-13/16	30	34-15/16	4	9-3/4	21-1/2	27-7/8	7/8	8-3/16	16-1/2	20-3/8	15
048	0	39-13/16	30	34-15/16	4	9-3/4	27-1/2	33-7/8	7/8	8-3/16	15-13/16	19-7/8	16
060	0	39-13/16	38-5/8	45	5-15/16	11-13/16	27-1/2	33-7/8	7/8	8-9/16	19-7/8	26	17-1/2

Electrical data

UNIT SIZE	V-PH	OPER VOLTS*		COMPR		FAN FLA	MCA	MIN WIRE SIZE 60°C/75°C**	MAX LENGTH (ft) 60°C/75°C‡	MAX FUSE† OR HACR TYPE CKT BKR AMPS
		Max	Min	LRA	RLA					
024-30	208/230-1	253	187	62.5	11.6	0.5	15.0	14/14	53/50	25
030-30				76.0	14.2	1.0	18.7	14/14	41/39	30
030-31				72.5	14.2	1.0	18.7	14/14	41/39	30
036-30				90.5	17.9	1.0	23.3	12/12	52/50	40
036-31				88.0	16.0	1.0	21.0	12/12	60/57	30
042-30				107.0	24.9	1.0	32.0	8/10	97/59	50
042-31				104.0	24.9	1.0	32.0	8/10	97/59	50
048-30				129.0	26.5	1.0	34.0	8/10	91/56	50
060-30				169.0	34.9	1.4	45.0	6/8	116/66	60

* Permissible limits of the voltage range at which unit will operate satisfactorily. Operation outside these limits may result in unit failure.

† Time-delay fuse.

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

** If wire is applied at ambient greater than 30°C (86°F), consult Table 310-16 of the NEC (ANSI/NFPA 70). The ampacity of nonmetallic-sheathed cable (NM), trade name ROMEX, shall be that of 60°C (140°F) conductors, per the NEC (ANSI/NFPA 70) Article 336-36.

If other than uncoated (non-plated), 60° or 75°C (140° or 167°F) insulation, copper wire (solid wire for 10 AWG and smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (ANSI/NFPA 70).

FLA — Full Load Amps

HACR — Heating, Air Conditioning, Refrigeration

LRA — Locked Rotor Amps

MCA — Minimum Circuit Amps

RLA — Rated Load Amps

NOTE: Control circuit is 24v 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.

Combination ratings*

UNIT SIZE AND SOUND RATING (Bels)	INDOOR UNIT	ARI STANDARD RATINGS*										
		Cooling					Heating					
		TC	Seasonal Efficiency SEER			High-Temp		Low-Temp		Seasonal Efficiency HSPF/HSPF with LSV		
			Factory- Supplied Enhance- ment	Standard Rating	Field-Supplied Accessory‡							
					TXV	TXV&TDR	TC	COP	TC	COP		
024-30	FC4BNF030†	22,800	TDR & TXV	12.00	—	—	24,000	3.46	14,600	2.36	7.80/8.20	
	FC4BNF024	22,400	TDR & TXV	11.80	—	—	24,000	3.42	14,700	2.32	7.70/8.00	
	FC4BNF033	23,200	TDR & TXV	12.10	—	—	24,000	3.56	14,700	2.38	8.00/8.50	
	F(A,B)ANF024	22,400	TDR	—	11.80	—	24,000	3.42	14,700	2.32	7.70/8.00	
	F(A,B)ANF030	22,800	TDR	—	12.10	—	24,000	3.46	14,600	2.36	7.80/8.20	
	FD3ANA024	21,800	None	—	—	11.80	24,000	3.32	14,500	2.30	7.50/8.00	
	FD3ANA030	22,600	None	—	—	11.80	24,000	3.44	14,700	2.34	7.70/8.20	
	FF1(A,B)NA024	22,400	TDR	—	11.80	—	24,000	3.44	14,700	2.34	7.70/8.20	
	FF1(A,B)NA030	22,800	TDR	—	12.00	—	24,000	3.48	14,700	2.36	7.80/8.20	
	FG3AAA024	21,800	None	—	—	11.50	24,000	3.26	14,600	2.28	7.50/7.80	
	FK4BNF001	23,400	TDR & TXV	13.00	—	—	23,800	3.72	14,200	2.52	8.20/8.50	
	FK4BNF002	23,600	TDR & TXV	13.50	—	—	24,000	3.84	14,200	2.54	8.50/9.00	
	FK4BNF003	23,600	TDR & TXV	14.00	—	—	23,600	3.80	14,000	2.56	8.50/9.00	
	CC5A/CD5A/CD5BA024	22,200	None	—	—	11.70	24,000	3.28	14,600	2.28	7.50/8.00	
	CC5A/CD5A/CD5BA030	22,400	None	—	—	11.70	24,000	3.32	14,600	2.30	7.50/8.00	
	CC5A/CD5A/CD5BA036	23,000	None	—	—	12.00	24,200	3.50	14,700	2.38	7.80/8.20	
	CD5A/CD5BW036	23,000	None	—	—	12.00	24,200	3.50	14,700	2.38	7.80/8.20	
	CC5A/CD5A/CD5BW030	22,400	None	—	—	11.70	24,000	3.32	14,600	2.30	7.50/8.00	
	CD3(A,B)A024	22,200	None	—	—	11.70	24,000	3.28	14,600	2.28	7.50/8.00	
	CD3(A,B)A030	22,400	None	—	—	11.70	24,000	3.32	14,600	2.30	7.50/8.00	
	CD3(A,B)A036	23,000	None	—	—	12.00	24,200	3.50	14,700	2.38	7.80/8.20	
	CE3AA024	22,200	None	—	—	11.70	24,000	3.28	14,600	2.28	7.50/8.00	
	CE3AA030	22,600	None	—	—	12.00	24,000	3.44	14,700	2.34	7.60/8.00	
	CF5AA024	22,400	None	—	—	11.70	24,000	3.34	14,600	2.32	7.50/8.00	
030-30,-31	FC4BNF036†	28,400	TDR & TXV	12.10	—	—	30,000	3.14	18,500	2.28	7.70/8.00	
	FC4BNF030	28,000	TDR & TXV	12.30	—	—	30,000	3.12	18,300	2.28	7.70/8.00	
	FC4BNF033	28,800	TDR & TXV	12.50	—	—	30,000	3.22	18,400	2.32	8.00/8.20	
	F(A,B)4ANF030	28,000	TDR	—	12.30	—	30,000	3.12	18,300	2.28	7.70/8.00	
	F(A,B)4ANF036	28,400	TDR	—	12.10	—	30,000	3.14	18,500	2.28	7.70/8.00	
	FD3ANA030	28,000	None	—	—	12.10	30,000	3.12	18,400	2.26	7.70/8.00	
	FF1(A,B)NA030	28,200	TDR	—	12.20	—	30,000	3.16	18,400	2.28	7.70/8.00	
	FG3AAA036	28,200	None	—	—	12.20	30,000	3.12	18,300	2.28	7.70/8.00	
	FK4BNF001	29,000	TDR & TXV	13.00	—	—	30,000	3.28	18,000	2.38	8.00/8.50	
	FK4BNF002	29,200	TDR & TXV	13.50	—	—	30,000	3.42	18,100	2.42	8.20/8.70	
	FK4BNF003	29,600	TDR & TXV	14.00	—	—	29,800	3.42	17,800	2.46	8.20/8.70	
	FK4BNF004	29,800	TDR & TXV	13.50	—	—	30,000	3.56	18,100	2.50	8.50/9.00	
	CC5A/CD5A/CD5BA030	27,800	None	—	—	12.00	30,000	3.00	18,300	2.22	7.50/7.70	
	CC5A/CD5A/CD5BW030	27,800	None	—	—	12.00	30,000	3.00	18,300	2.22	7.50/7.70	
	CC5A/CD5A/CD5BA036	28,600	None	—	—	12.50	30,000	3.18	18,400	2.30	7.70/8.00	
	CD5A/CD5BW036	28,600	None	—	—	12.50	30,000	3.18	18,400	2.30	7.70/8.00	
	CD3(A,B)A030	27,800	None	—	—	12.00	30,000	3.00	18,300	2.22	7.50/7.70	
	CD3(A,B)A036	28,600	None	—	—	12.50	30,000	3.18	18,400	2.30	7.70/8.00	
	CE3AA030	28,000	None	—	—	12.00	30,000	3.12	18,300	2.28	7.70/8.00	
	CE3AA036	28,400	None	—	—	12.50	30,000	3.12	18,300	2.28	7.70/8.00	
	CF5AA036	28,600	None	—	—	12.50	30,000	3.16	18,400	2.30	7.70/8.00	
	036-30,-31	FC4BN(F,B)042†	34,200	TDR & TXV	12.00	—	—	36,000	3.34	22,800	2.42	7.80/8.20
		FC4BNF036	33,600	TDR & TXV	11.50	—	—	36,000	3.24	22,800	2.36	7.60/8.00
		FC4BNF033	34,200	TDR & TXV	11.70	—	—	36,000	3.34	22,800	2.42	7.80/8.20
F(A,B)4ANF036		33,600	TDR	—	11.50	—	36,000	3.24	22,800	2.36	7.60/8.00	
F(A,B)4AN(F,B)042		34,200	TDR	—	12.00	—	36,000	3.34	22,800	2.42	7.80/8.20	
FG3AAA036		33,400	None	—	—	11.50	36,000	3.24	22,600	2.38	7.60/8.00	
FK4BNF001		33,800	TDR & TXV	12.00	—	—	36,000	3.34	22,400	2.42	7.80/8.20	
FK4BNF002		33,800	TDR & TXV	12.00	—	—	36,000	3.44	22,600	2.46	7.80/8.50	
FK4BNF003		34,800	TDR & TXV	13.00	—	—	35,600	3.50	22,000	2.52	8.00/8.50	
FK4BNF004		34,600	TDR & TXV	12.50	—	—	36,000	3.64	22,400	2.58	8.20/9.00	
CC5A/CD5A/CD5BA036		34,000	None	—	—	12.00	36,000	3.32	22,600	2.42	7.70/8.20	
CD5A/CD5BW036		34,000	None	—	—	12.00	36,000	3.32	22,600	2.42	7.70/8.20	
CC5A/CD5A/CD5BA042		34,000	None	—	—	12.00	36,000	3.32	22,600	2.42	7.70/8.20	
CC5A/CD5A/CD5BW042		33,800	None	—	—	12.00	36,000	3.28	22,600	2.40	7.70/8.20	
CC5A/CD5A/CD5BA043		34,000	None	—	—	12.00	36,000	3.32	22,600	2.42	7.70/8.20	
CC5A/CD5A/CD5BW043		34,000	None	—	—	12.00	36,000	3.32	22,600	2.40	7.70/8.20	
CD3(A,B)A036		34,000	None	—	—	12.00	36,000	3.32	22,600	2.42	7.70/8.20	
CD3(A,B)A042		34,000	None	—	—	12.00	36,000	3.32	22,600	2.42	7.70/8.20	
CE3AA036		33,600	None	—	—	11.70	36,000	3.26	22,600	2.38	7.60/8.20	
CE3AA042		34,400	None	—	—	12.00	36,000	3.36	22,600	2.44	7.70/8.20	
CF5AA036		34,000	None	—	—	12.00	36,000	3.30	22,600	2.40	7.70/8.20	
042-30		FK4BNF005†	41,500	TDR & TXV	12.70	—	—	39,500	3.46	26,200	2.58	8.20/8.40
		FK4BNB003	39,500	TDR & TXV	12.50	—	—	38,500	3.20	25,800	2.46	7.70/7.90
		FC4BNF038	40,500	TDR & TXV	12.00	—	—	40,000	3.30	26,600	2.48	7.80/8.00
	FC4BN(F,B)042	38,500	TDR & TXV	11.50	—	—	39,000	3.08	26,200	2.38	7.50/7.70	
	FC4BN(F,B)048	39,500	TDR & TXV	12.00	—	—	39,500	3.20	26,400	2.44	7.70/7.90	
	F(A,B)4AN(F,B)042	38,500	TDR	—	11.50	—	39,000	3.08	26,200	2.38	7.50/7.70	
	F(A,B)4AN(F,B)048	39,500	TDR	—	12.00	—	39,500	3.20	26,400	2.44	7.70/7.90	
	FG3AAA048	39,000	None	—	—	11.80	39,000	3.14	26,200	2.42	7.50/7.70	

See notes on pg. 8.

Combination ratings*

UNIT SIZE AND SOUND RATING (Bels)	INDOOR UNIT	ARI STANDARD RATINGS*								
		Cooling					Heating			
		Seasonal Efficiency SEER					High-Temp		Low-Temp	
		TC	Factory-Supplied Enhancement	Standard Rating	Field-Supplied Accessory‡		High-Temp		Low-Temp	
					TXV	TXV&TDR	TC	COP	TC	COP
042-30	CC5A/CD5A/CD5BA042	38,500	None	—	—	11.80	39,000	3.06	26,000	2.38
	CC5A/CD5A/CD5BW042	38,500	None	—	—	11.80	38,500	3.04	26,000	2.36
	CC5A/CD5A/CD5BA043	38,500	None	—	—	11.80	39,000	3.06	26,000	2.38
	CC5A/CD5A/CD5BW043	38,500	None	—	—	11.80	39,000	3.06	26,000	2.38
	CD5A/CD5BA048	38,600	None	—	—	12.00	39,000	3.12	26,200	2.40
	CC5A/CD5A/CD5BC048	38,500	None	—	—	11.80	38,500	2.98	26,000	2.34
	CC5A/CD5A/CD5BW048	38,500	None	—	—	12.00	39,000	3.12	26,200	2.40
	CD3(A,B)A042	38,500	None	—	—	11.80	39,000	3.06	26,000	2.38
	CD3(A,B)A048	38,500	None	—	—	12.00	39,000	3.12	26,200	2.40
	CE3AA042	39,000	None	—	—	11.80	39,000	3.12	26,200	2.40
	CE3AA048	39,000	None	—	—	12.00	39,000	3.14	26,200	2.42
	CF5AA048	39,000	None	—	—	11.80	39,000	3.10	26,000	2.40
042-31	FK4BNB005†	41,500	TDR & TXV	13.50	—	—	41,000	3.74	25,400	2.62
	FK4BNF003	39,500	TDR & TXV	13.00	—	—	41,000	3.44	250,00	2.50
	FC4BNF038	40,500	TDR & TXV	12.50	—	—	41,000	3.56	25,800	2.50
	FC4BN(F,B)042	39,000	TDR & TXV	12.00	—	—	41,000	3.32	25,600	2.40
	FC4BN(F,B)048	39,500	TDR & TXV	12.50	—	—	41,000	3.46	25,600	2.46
	F(A,B)4AN(F,B)042	39,000	TDR	—	12.00	—	41,000	3.32	25,600	2.40
	F(A,B)4AN(F,B)048	39,500	TDR	—	12.50	—	41,000	3.46	25,600	2.46
	FG3AAA048	39,000	None	—	—	12.00	41,000	3.38	25,400	2.44
	CC5A/CD5A/CD5BA042	39,000	None	—	—	12.00	41,000	3.32	25,400	2.40
	CC5A/CD5A/CD5BW042	38,500	None	—	—	12.00	41,000	3.28	25,400	2.38
	CC5A/CD5A/CD5BA043	39,000	None	—	—	12.00	41,000	3.32	25,400	2.40
	CC5A/CD5A/CD5BW043	39,000	None	—	—	12.00	41,000	3.30	25,400	2.40
	CD5A/CD5BA048	39,000	None	—	—	12.50	41,000	3.36	25,400	2.42
	CC5A/CD5A/CD5BC048	38,500	None	—	—	12.50	41,000	3.22	25,400	2.38
	CC5A/CD5A/CD5BW048	39,000	None	—	—	12.50	41,000	3.36	25,400	2.42
	CD3(A,B)A042	39,000	None	—	—	12.00	41,000	3.32	25,400	2.40
	CD3(A,B)A048	39,000	None	—	—	12.50	41,000	3.36	25,400	2.42
	CE3AA042	39,500	None	—	—	12.00	41,000	3.36	25,400	2.42
	CE3AA048	39,500	None	—	—	12.50	41,000	3.40	25,400	2.44
	CF5AA048	39,500	None	—	—	12.50	41,000	3.34	25,400	2.42
048-30	FK4BNB006†	48,000	TDR & TXV	13.00	—	—	49,000	3.56	30,200	2.56
	FC4BN(F,B)048	45,500	TDR & TXV	11.40	—	—	49,500	3.16	30,800	2.34
	FC4BNB054	48,000	TDR & TXV	12.10	—	—	50,000	3.46	30,600	2.52
	FC4BN(F,B)060	47,000	TDR & TXV	11.50	—	—	50,000	3.24	31,000	2.36
	FC4BNB070	47,500	TDR & TXV	12.00	—	—	50,000	3.40	30,800	2.58
	F(A,B)4AN(F,B)048	45,500	TDR	—	11.40	—	49,500	3.16	30,800	2.34
	F(A,B)4AN(F,B)060	47,000	TDR	—	11.50	—	50,000	3.24	31,000	2.36
	FB4ANB070	47,500	TDR	—	12.00	—	50,000	3.40	30,800	2.58
	FG3AAA048	45,000	None	—	—	11.40	49,000	3.08	30,400	2.32
	FG3AAA060	46,000	None	—	—	11.70	49,000	3.12	30,400	2.34
	CD5A/CD5BA048	45,000	None	—	—	11.40	48,500	3.04	30,400	2.30
	CC5A/CD5A/CD5BC048	44,500	None	—	—	11.30	48,000	2.88	30,200	2.22
	CC5A/CD5A/CD5BW048	45,000	None	—	—	11.40	48,500	3.04	30,400	2.30
	CC5A/CD5A/CD5BA060	45,000	None	—	—	11.50	48,500	3.00	30,400	2.28
	CC5A/CD5A/CD5BW060	46,500	None	—	—	11.80	49,000	3.18	30,600	2.36
	CD3(A,B)A048	45,000	None	—	—	11.40	48,500	3.04	30,400	2.30
	CD3(A,B)A060	45,000	None	—	—	11.50	48,500	3.00	30,400	2.28
	CE3AA048	45,500	None	—	—	11.60	49,000	3.08	30,400	2.32
	CE3AA060	46,500	None	—	—	12.00	49,000	3.18	30,600	2.36
	CF5AA048	45,500	None	—	—	11.60	48,500	3.02	30,400	2.28
060-30	FK4BNB006†	59,000	TDR & TXV	12.50	—	—	61,000	3.30	39,000	2.54
	FC4BN(F,B)060	57,500	TDR & TXV	11.50	—	—	61,000	3.06	39,500	2.40
	FC4BNB070	58,500	TDR & TXV	12.00	—	—	61,000	3.22	39,500	2.48
	F(A,B)4AN(F,B)060	57,500	TDR	—	11.50	—	61,000	3.06	39,500	2.40
	FB4ANB070	58,500	TDR	—	12.00	—	61,000	3.22	39,500	2.48
	FG3AAA060	56,500	None	—	—	11.50	61,000	2.94	39,000	2.36
	CC5A/CD5A/CD5BA060	55,500	None	—	—	11.50	61,000	2.82	38,500	2.30
	CC5A/CD5A/CD5BW060	56,500	None	—	—	11.50	61,000	3.00	39,000	2.40
	CD3(A,B)A060	55,500	None	—	—	11.50	61,000	2.82	38,500	2.30
	CE3AA060	57,500	None	—	—	12.00	61,000	3.00	39,000	2.40

* Ratings are net values reflecting the effects of circulating fan heat. Supplemental electric heat is not included. Ratings are based on:

Cooling Standard: 80°F (27°C) db 67°F (19°C) wb indoor entering air temperature and 95°F (35°C) db air entering outdoor unit.

High-Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 47°F (8°C) db 43°F (6°C) wb air entering outdoor unit.

Low-Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 17°F (-9°C) db 15°F (-10°C) wb air entering outdoor unit.

† Outdoor section/indoor section combination tested in accordance with DOE test procedures for heat pumps. Ratings for other combinations are determined under DOE computer simulation procedures.

‡ See TDR.90 table. Requires hard shut-off TXV; based on computer simulation.

SEER — Seasonal Energy Efficiency Ratio

COP — Coefficient of Performance

HSP — Heating Seasonal Performance Factor

TC — Total Capacity (Btuh)

LSV — Liquid Solenoid Valve

TDR — Time-Delay Relay

TXV — Thermostatic Expansion Valve

TDR.90 TABLE

METHOD	PART/MODEL NO.
Time-Delay Relay	KAATD0101TDR
Furnaces with TDR	58MCA, 58MVP, 58MXA, 58TMA, 58TUA, 58SX, 58DX, 58SXA, 58SXB, 58DXA, 58DXC, 58SSC, 58DHC, 58WAV, 58ZAV, 58PAV, 58PAP, 58RAP, 58RAV, 58EJA, 58VUA, 58VCA

NOTE: In most cases, only 1 of the above should be used to achieve TDR function. More than 1 of the methods listed above in a system may cause degradation in performance.

Detailed cooling capacities*

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F AIR											
		85			95			105			115		
CFM	EWB	Capacity MBtu/h†		Total System KW**	Capacity MBtu/h†		Total System KW**	Capacity MBtu/h†		Total System KW**	Capacity MBtu/h†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38YRA024-30 Outdoor Section With FC4BNF030 Indoor Section													
700	72	25.8	13.0	1.93	24.6	12.6	2.13	23.5	12.2	2.37	22.2	11.7	2.63
	67	23.6	16.6	1.92	22.5	16.1	2.13	21.4	15.7	2.36	20.4	15.3	2.63
	63††	21.9	16.1	1.92	20.9	15.6	2.12	20.0	15.3	2.36	19.0	14.8	2.62
	62	21.6	20.0	1.92	20.6	19.5	2.12	19.7	19.1	2.36	18.8	18.5	2.61
	57	20.9	20.9	1.91	20.2	20.2	2.12	19.5	19.5	2.36	18.7	18.7	2.62
800	72	26.2	13.6	1.96	24.9	13.2	2.17	23.7	12.7	2.40	22.6	12.4	2.68
	67	23.9	17.6	1.96	22.8	17.2	2.16	21.8	16.8	2.40	20.8	16.4	2.68
	63††	22.2	17.1	1.95	21.2	16.6	2.15	20.2	16.2	2.40	19.2	15.7	2.65
	62	22.0	21.3	1.95	21.0	20.8	2.15	20.2	20.2	2.40	19.3	19.3	2.65
	57	21.8	21.8	1.95	21.0	21.0	2.16	20.2	20.2	2.40	19.3	19.3	2.66
900	72	26.4	14.2	1.99	25.2	13.7	2.20	24.1	13.4	2.45	22.9	13.0	2.72
	67	24.2	18.6	1.99	23.1	18.2	2.20	22.0	17.7	2.43	20.9	17.3	2.71
	63††	22.5	18.0	1.98	21.5	17.6	2.20	20.4	17.1	2.43	19.5	16.7	2.70
	62	22.4	22.4	1.98	21.6	21.6	2.20	20.7	20.7	2.43	19.8	19.8	2.69
	57	22.4	22.4	1.99	21.6	21.6	2.19	20.7	20.7	2.43	19.8	19.8	2.69

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Cooling		Indoor Section	Size	Cooling	
		Capacity	Power			Capacity	Power
FC4BNF	024	0.98	1.01	CC5A/CD5A/CD5BA	024	0.97	1.01
	030	1.00	1.00		030	0.98	1.01
	033	1.02	1.01		036	1.01	1.01
F(A,B)4ANF	024	0.98	1.01	CC5A/CD5A/CD5BW	030	0.98	1.01
	030	1.00	1.00		036	1.01	1.01
FD3ANA	024	0.96	0.99	CD3(A,B)A	024	0.97	1.01
	030	0.99	1.02		030	0.98	1.01
FF1(A,B)NA	024	0.98	1.01		036	1.01	1.01
	030	1.00	1.02	CE3AA	024	0.97	1.01
FG3AAA	024	0.96	1.01		030	0.99	1.01
FK4BNF	001	1.03	0.94	CF5AA	024	0.98	1.01
	002	1.04	0.94		—	—	—
	003	1.04	0.91		—	—	—

38YRA030-30,-31 Outdoor Section With FC4BNF036 Indoor Section

850	72	32.1	16.0	2.43	30.7	15.5	2.65	29.3	14.9	2.89	27.8	14.4	3.16
	67	29.3	20.3	2.41	28.0	19.8	2.62	26.8	19.3	2.86	25.5	18.8	3.13
	63††	27.3	19.7	2.39	26.1	19.2	2.60	24.8	18.7	2.84	23.4	18.1	3.10
	62	26.8	24.5	2.38	25.8	24.0	2.60	24.5	23.4	2.84	23.2	22.7	3.10
	57	26.0	26.0	2.38	25.1	25.1	2.59	24.2	24.2	2.83	23.1	23.1	3.10
950	72	32.4	16.5	2.47	31.0	16.0	2.69	29.6	15.5	2.94	28.0	15.0	3.20
	67	29.8	21.4	2.45	28.4	20.8	2.67	27.1	20.3	2.91	25.6	19.7	3.17
	63††	27.7	20.7	2.43	26.4	20.2	2.65	25.2	19.7	2.89	23.8	19.1	3.15
	62	27.3	25.9	2.43	26.2	25.3	2.64	25.1	24.7	2.89	23.8	23.8	3.15
	57	26.8	26.8	2.43	25.9	25.9	2.64	24.9	24.9	2.89	23.8	23.8	3.15
1050	72	32.9	17.2	2.52	31.5	16.7	2.74	30.0	16.1	2.98	28.1	15.5	3.25
	67	30.0	22.4	2.49	28.7	21.8	2.71	27.4	21.3	2.95	25.9	20.7	3.22
	63††	27.9	21.6	2.48	26.6	21.1	2.69	25.4	20.6	2.93	24.1	20.0	3.20
	62	27.8	27.2	2.48	26.6	26.4	2.69	25.5	25.5	2.93	24.4	24.4	3.20
	57	27.5	27.5	2.47	26.6	26.6	2.69	25.6	25.6	2.94	24.4	24.4	3.20

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Cooling		Indoor Section	Size	Cooling	
		Capacity	Power			Capacity	Power
FC4BNF	030	0.99	0.98	CC5A/CD5A/CD5BA	030	0.98	0.98
	033	1.01	0.98		036	1.01	0.99
	036	1.00	1.00		030	0.98	0.98
F(A,B)4ANF	030	0.99	0.98	CD5A/CD5BW	036	1.01	0.99
	036	1.00	1.00		030	0.98	0.98
FD3ANA	030	0.99	0.99	CD3(A,B)A	030	0.98	0.98
FF1(A,B)NA	030	0.99	0.99		036	1.01	0.99
FG3AAA	036	0.99	0.98	CE3AA	030	0.99	0.98
FK4BNF	001	1.02	0.94		036	1.00	0.98
	002	1.03	0.94	CF5AA	—	—	—
	003	1.04	0.92		—	—	—
	004	1.05	0.93		—	—	—

See notes on pg. 13.

Detailed cooling capacities* continued

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F AIR											
		85			95			105			115		
CFM	EWB	Capacity MBtu/h†		Total System KW**	Capacity MBtu/h†		Total System Kw**	Capacity MBtu/h†		Total System Kw**	Capacity MBtu/h†		Total System Kw**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38YRA036-30,-31 Outdoor Section With FC4BN(F,B)042 Indoor Section													
1100	72	38.6	19.8	3.05	37.0	19.2	3.35	35.2	18.6	3.67	33.2	17.9	4.02
	67	35.6	25.7	3.02	34.0	25.0	3.31	32.3	24.3	3.63	30.4	23.6	3.98
	63††	33.2	25.0	3.00	31.7	24.3	3.29	30.1	23.6	3.60	28.4	22.9	3.96
	62	32.8	31.2	3.00	31.4	30.4	3.28	29.9	29.6	3.60	28.5	28.5	3.96
	57	32.2	32.2	2.98	31.1	31.1	3.28	29.8	29.8	3.60	28.4	28.4	3.95
1200	72	38.9	20.4	3.09	37.3	19.8	3.39	35.4	19.2	3.71	33.3	18.5	4.06
	67	35.9	26.7	3.07	34.2	26.1	3.35	32.4	25.4	3.67	30.8	24.7	4.03
	63††	33.5	25.9	3.04	31.9	25.2	3.33	30.4	24.6	3.66	28.7	23.8	4.00
	62	33.2	32.5	3.04	31.8	31.6	3.33	30.4	30.4	3.64	29.0	29.0	4.00
	57	32.9	32.9	3.03	31.8	31.8	3.33	30.4	30.4	3.64	28.9	28.9	3.99
1300	72	39.1	21.0	3.13	37.5	20.4	3.43	35.5	19.7	3.75	33.5	19.0	4.10
	67	36.1	27.7	3.10	34.4	27.1	3.39	32.8	26.4	3.73	30.9	25.7	4.07
	63††	33.7	26.9	3.08	32.1	26.2	3.37	30.6	25.5	3.69	28.8	24.7	4.04
	62	33.7	33.5	3.08	32.3	32.3	3.37	30.9	30.9	3.69	29.5	29.5	4.05
	57	33.7	33.7	3.08	32.3	32.3	3.37	30.9	30.9	3.69	29.5	29.5	4.05

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Cooling		Indoor Section	Size	Cooling	
		Capacity	Power			Capacity	Power
FC4BN(F,B)	042	1.00	1.00	CC5A/CD5A/CD5BA	036	0.99	0.99
FC4BNF	033	1.00	1.00		042	0.99	0.99
	036	0.98	1.01		043	0.99	0.99
F(A,B)4ANF	036	0.98	1.01	CC5A/CD5A/CD5BW	042	0.99	0.99
F(A,B)4AN(F,B)	042	1.00	1.00		043	0.99	0.99
FG3AAA	036	0.98	0.99	CD5A/CD5BW	036	0.99	0.99
FK4BNF	001	0.99	0.97	CD3(A,B)A	036	0.99	0.99
	002	0.99	0.98		042	0.99	0.99
	003	1.02	0.94		036	0.98	0.99
	004	1.01	0.96	CE3AA	042	1.01	0.99
	—	—	—	CF5AA	036	0.99	0.99

38YRA042-30 Outdoor Section With FK4BNF005 Indoor Section

1202	72	46.5	23.9	3.36	44.4	23.1	3.70	42.1	22.3	4.07	40.1	21.6	4.48
	67	42.8	30.6	3.30	41.0	29.9	3.65	39.0	29.1	4.02	36.9	28.2	4.42
	63††	40.0	29.8	3.26	38.4	29.1	3.61	36.5	28.2	3.97	34.4	27.4	4.36
	62	39.5	37.1	3.25	37.9	36.3	3.60	36.3	35.5	3.97	34.2	34.2	4.36
	57	38.7	38.7	3.25	37.4	37.4	3.59	35.9	35.9	3.96	34.2	34.2	4.36
1330	72	47.0	24.8	3.40	44.8	24.1	3.74	42.5	23.3	4.11	40.4	22.5	4.52
	67	43.3	32.2	3.34	41.5	31.5	3.69	39.4	30.6	4.06	37.2	29.8	4.46
	63††	40.5	31.3	3.30	38.8	30.5	3.65	36.8	29.7	4.01	34.7	28.8	4.41
	62	40.1	39.1	3.30	38.6	38.2	3.64	37.0	37.0	4.02	35.1	35.1	4.41
	57	39.9	39.9	3.29	38.5	38.5	3.64	36.8	36.8	4.01	35.1	35.1	4.41
1469	72	47.4	25.7	3.44	45.2	25.0	3.78	42.8	24.2	4.15	40.7	23.5	4.56
	67	43.7	33.8	3.38	41.9	33.0	3.73	39.7	32.2	4.10	37.5	31.3	4.50
	63††	40.9	32.7	3.34	39.2	32.0	3.68	37.1	31.1	4.05	35.0	30.2	4.44
	62	40.8	40.8	3.34	39.3	39.3	3.69	37.8	37.8	4.07	35.8	35.8	4.46
	57	40.8	40.8	3.34	39.4	39.4	3.69	37.7	37.7	4.06	35.9	35.9	4.46

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Cooling		Indoor Section	Size	Cooling	
		Capacity	Power			Capacity	Power
FK4BNF	005	1.00	1.00	CC5A/CD5A/CD5BW	042	0.93	1.01
FK4BNB	003	0.95	0.98		043	0.93	1.01
FC4BNF	038	0.98	1.04		048	0.93	1.00
FC4BN(F,B)	042	0.93	1.02	CC5A/CD5A/CD5BC	048	0.93	1.01
	048	0.95	1.03	CD5A/CD5BA	048	0.93	1.00
F(A,B)4AN(F,B)	042	0.93	1.02	CD3(A,B)A	042	0.93	1.01
	048	0.95	1.03		048	0.93	1.00
FG3AAA	048	0.94	1.01	CE3AA	042	0.94	1.02
CC5A/CD5A/CD5BA	042	0.93	1.01		048	0.94	1.02
	043	0.93	1.01	CF5AA	048	0.94	1.02

See notes on pg. 13.

Detailed cooling capacities* continued

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F AIR											
		85			95			105			115		
CFM	EWB	Capacity MBtu/h†		Total System KW**	Capacity MBtu/h†		Total System Kw**	Capacity MBtu/h†		Total System Kw**	Capacity MBtu/h†		Total System Kw**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38YRA042-31 Outdoor Section With FK4BNB005 Indoor Section													
1202	72	46.5	23.9	3.24	44.4	23.1	3.57	42.1	22.3	3.93	40.1	21.6	4.33
	67	42.8	30.6	3.19	41.0	29.9	3.52	39.0	29.1	3.88	36.9	28.2	4.26
	63††	40.0	29.8	3.15	38.4	29.1	3.48	36.5	28.2	3.83	34.4	27.4	4.21
	62	39.5	37.1	3.14	37.9	36.3	3.47	36.3	35.5	3.83	34.2	34.2	4.21
	57	38.7	38.7	3.13	37.4	37.4	3.47	35.9	35.9	3.82	34.2	34.2	4.21
1335	72	47.0	24.8	3.28	44.8	24.1	3.61	42.5	23.3	3.97	40.4	22.5	4.37
	67	43.3	32.2	3.23	41.5	31.5	3.56	39.4	30.6	3.92	37.2	29.8	4.30
	63††	40.5	31.3	3.19	38.8	30.5	3.52	36.8	29.7	3.87	34.7	28.8	4.25
	62	40.1	39.1	3.18	38.6	38.2	3.51	37.0	37.0	3.88	35.1	35.1	4.26
	57	39.9	39.9	3.18	38.5	38.5	3.51	36.8	36.8	3.87	35.1	35.1	4.26
1469	72	47.4	25.7	3.32	45.2	25.0	3.65	42.8	24.2	4.01	40.7	23.5	4.41
	67	43.7	33.8	3.27	41.9	33.0	3.60	39.7	32.2	3.96	37.5	31.3	4.34
	63††	40.9	32.7	3.23	39.2	32.0	3.56	37.1	31.1	3.91	35.0	30.2	4.29
	62	40.8	40.8	3.22	39.3	39.3	3.56	37.8	37.8	3.93	35.8	35.8	4.31
	57	40.8	40.8	3.22	39.4	39.4	3.56	37.7	37.7	3.92	35.9	35.9	4.31

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Cooling		Indoor Section	Size	Cooling	
		Capacity	Power			Capacity	Power
FK4BNB	005	1.00	1.00	CC5A/CD5A/CD5BW	042	0.93	1.01
FK4BNF	003	0.95	0.98		043	0.94	1.01
FC4BNF	038	0.98	1.04		048	0.94	1.01
FC4BN(F,B)	042	0.94	1.02	CC5A/CD5A/CD5BC	048	0.93	1.01
	048	0.95	1.03		048	0.94	1.01
F(A,B)4AN(F,B)	042	0.94	1.02	CD3(A,B)A	042	0.94	1.01
	048	0.95	1.03		048	0.94	1.01
FG3AAA	048	0.94	1.01	CE3AA	042	0.95	1.02
CC5A/CD5A/CD5BA	042	0.94	1.01		048	0.95	1.02
	043	0.94	1.01	CF5AA	048	0.95	1.02

38YRA048-30 Outdoor Section With FK4BNB006 Indoor Section

1350	72	53.7	27.0	3.98	51.2	26.1	4.48	48.9	25.2	5.03	46.2	24.2	5.62
	67	49.7	34.3	3.95	47.4	33.3	4.44	45.0	32.4	4.98	42.5	31.3	5.55
	63††	46.5	33.5	3.92	44.4	32.5	4.41	42.1	31.5	4.94	39.7	30.5	5.50
	62	45.8	41.3	3.91	43.7	40.3	4.40	41.5	39.3	4.93	39.2	38.1	5.49
	57	44.1	44.1	3.89	42.6	42.6	4.39	40.8	40.8	4.92	38.9	38.9	5.49
1500	72	54.3	28.0	4.02	51.8	27.1	4.52	49.4	26.2	5.07	46.6	25.2	5.66
	67	50.4	36.0	3.99	48.0	35.1	4.49	45.5	34.1	5.02	42.9	33.0	5.60
	63††	47.2	35.1	3.96	44.9	34.1	4.45	42.6	33.1	4.98	40.4	32.2	5.56
	62	46.5	43.7	3.96	44.4	42.7	4.44	42.2	41.5	4.97	40.0	40.0	5.54
	57	45.7	45.7	3.95	43.9	43.9	4.44	42.0	42.0	4.97	40.0	40.0	5.55
1650	72	54.9	29.0	4.06	52.2	28.0	4.56	49.8	27.2	5.12	46.9	26.2	5.70
	67	50.9	37.7	4.03	48.5	36.8	4.53	45.9	35.8	5.06	43.3	34.7	5.64
	63††	47.7	36.7	4.00	45.4	35.7	4.49	43.0	34.7	5.02	41.1	33.9	5.62
	62	47.2	45.9	4.00	45.1	44.8	4.49	43.0	43.0	5.02	40.9	40.9	5.60
	57	46.9	46.9	4.00	45.0	45.0	4.49	43.0	43.0	5.02	40.9	40.9	5.60

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Cooling		Indoor Section	Size	Cooling	
		Capacity	Power			Capacity	Power
FK4BNB	006	1.00	1.00	CD5A/CD5BA	048	0.94	1.04
FC4BN(F,B)	048	0.95	1.05	CC5A/CD5A/CD5BC	048	0.93	1.04
	060	0.98	1.07		048	0.94	1.04
FC4BNB	054	1.00	1.04	CC5A/CD5A/CD5BW	060	0.97	1.04
	070	0.99	1.06		060	0.94	1.04
F(A,B)4AN(F,B)	048	0.95	1.05	CD3(A,B)A	048	0.94	1.04
	060	0.98	1.07		060	0.94	1.04
FB4ANB	070	0.99	1.06	CE3AA	048	0.95	1.04
FG3AAA	048	0.94	1.04		060	0.97	1.04
	060	0.96	1.04	CF5AA	048	0.95	1.04

See notes on pg. 13.

Detailed cooling capacities* continued

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F AIR											
		85			95			105			115		
CFM	EWB	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System Kw**	Capacity MBtuh†		Total System Kw**	Capacity MBtuh†		Total System Kw**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
38YRA060-30 Outdoor Section With FK4BNB006 Indoor Section													
1598	72	66.2	32.9	4.93	63.3	31.8	5.47	60.2	30.7	6.06	57.0	29.5	6.69
	67	61.0	41.6	4.87	58.4	40.6	5.40	55.5	39.4	5.98	52.5	38.2	6.60
	63††	57.2	40.7	4.82	54.7	39.6	5.34	52.0	38.4	5.92	49.2	37.2	6.54
	62	56.2	50.2	4.80	53.8	49.0	5.33	51.2	47.8	5.90	48.5	46.5	6.52
	57	54.2	54.2	4.78	52.2	52.2	5.31	50.1	50.1	5.89	47.9	47.9	6.51
1775	72	67.0	34.0	5.00	64.0	32.9	5.54	60.8	31.8	6.12	57.4	30.6	6.76
	67	61.8	43.7	4.93	59.0	42.5	5.46	56.1	41.4	6.04	53.0	40.2	6.67
	63††	57.9	42.6	4.88	55.3	41.4	5.41	52.6	40.3	5.98	49.7	39.0	6.61
	62	57.1	53.0	4.87	54.6	51.8	5.40	51.9	50.4	5.97	49.3	48.9	6.59
	57	55.8	55.8	4.85	53.7	53.7	5.39	51.5	51.5	5.97	49.2	49.2	6.60
1953	72	67.6	35.2	5.06	64.5	34.1	5.60	61.2	33.0	6.19	57.8	31.8	6.82
	67	62.4	45.7	4.99	60.0	44.7	5.54	56.6	43.4	6.11	53.4	42.1	6.74
	63††	58.5	44.5	4.94	55.9	43.3	5.47	53.0	42.1	6.05	50.1	40.8	6.67
	62	57.9	55.6	4.93	55.3	54.3	5.46	52.7	52.6	6.04	50.2	50.2	6.67
	57	57.2	57.2	4.93	55.1	55.1	5.46	52.7	52.7	6.04	50.3	50.3	6.67

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Cooling		Indoor Section	Size	Cooling	
		Capacity	Power			Capacity	Power
FK4BNB	006	1.00	1.00	FG3AAA	060	0.96	1.01
FC4BN(F,B)	060	0.97	1.05	CC5A/CD5A/CD5BA	060	0.94	1.01
FC4BNB	070	0.99	1.03	CC5A/CD5A/CD5BW	060	0.96	1.01
F(A,B)4AN(F,B)	060	0.97	1.05	CD3(A,B)A	060	0.94	1.01
FB4ANB	070	0.99	1.03	CE3AA	060	0.97	1.02

* Detailed cooling capacities are based on indoor and outdoor unit at the same elevation and connected by 25 ft (7.62m) of tubing. If other than 25 ft (7.62m) of tubing is used and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

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

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

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

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

EWB—Entering Wet Bulb

Heat pump heating performance

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F AIR																				
		-3			7			17			27			37			47			57		
EDB	CFM	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power
		Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡
38YRA024-30 Outdoor Section With FC4BNF030 Indoor Section																						
65	700	9.69	8.92	1.60	12.1	11.1	1.67	14.6	13.3	1.73	17.4	15.4	1.79	20.5	18.6	1.87	24.0	24.0	1.96	28.1	28.1	2.08
	800	9.86	9.08	1.62	12.2	11.3	1.69	14.8	13.5	1.74	17.6	15.6	1.79	20.7	18.9	1.86	24.3	24.3	1.94	28.4	28.4	2.06
	900	10.0	9.21	1.65	12.4	11.4	1.71	14.9	13.6	1.75	17.7	15.8	1.80	20.9	19.0	1.86	24.5	24.5	1.94	28.6	28.6	2.05
70	700	9.45	8.69	1.66	11.9	10.9	1.74	14.4	13.2	1.81	17.2	15.3	1.88	20.3	18.5	1.96	23.7	23.7	2.05	27.8	27.8	2.18
	800	9.61	8.84	1.68	12.1	11.1	1.75	14.6	13.3	1.81	17.4	15.4	1.87	20.5	18.7	1.94	24.0	24.0	2.03	28.1	28.1	2.15
	900	9.78	8.99	1.71	12.2	11.2	1.77	14.8	13.5	1.83	17.5	15.6	1.88	20.7	18.8	1.95	24.2	24.2	2.03	28.3	28.3	2.14
75	700	9.17	8.44	1.72	11.7	10.8	1.81	14.3	13.0	1.88	17.0	15.1	1.96	20.1	18.3	2.05	23.5	23.5	2.15	27.5	27.5	2.29
	800	9.34	8.60	1.74	11.9	10.9	1.82	14.4	13.2	1.89	17.2	15.3	1.96	20.3	18.5	2.04	23.8	23.8	2.13	27.8	27.8	2.26
	900	9.50	8.74	1.76	12.0	11.1	1.84	14.6	13.3	1.90	17.4	15.4	1.96	20.5	18.6	2.03	24.0	24.0	2.12	28.0	28.0	2.24

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Heating		Indoor Section	Size	Heating	
		Capacity	Power			Capacity	Power
FC4BNF	024	1.00	1.01	CC5A/CD5A/CD5BA	024	1.00	1.05
	030	1.00	1.00		030	1.00	1.04
	033	1.00	0.97		036	1.01	1.00
F(A,B)4ANF	024	1.00	1.01	CC5A/CD5A/CD5BW	030	1.00	1.04
	030	1.00	1.00		036	1.01	1.00
FD3ANA	024	1.00	1.04	CD3(A,B)A	024	1.00	1.05
	030	1.00	1.01		030	1.00	1.04
FF1(A,B)NA	024	1.00	1.01		036	1.01	1.00
	030	1.00	0.99	CE3AA	024	1.00	1.05
FG3AAA	024	1.00	1.06		030	1.00	1.01
FK4BNF	001	0.99	0.92	CF5AA	024	1.00	1.04
	002	1.00	0.90		—	—	—
	003	0.98	0.90		—	—	—

38YRA030-30,-31 Outdoor Section With FC4BNF036 Indoor Section

65	850	12.9	11.9	2.08	15.5	14.2	2.17	18.5	16.8	2.27	21.9	19.4	2.38	25.7	23.4	2.52	30.0	30.0	2.69	34.9	34.9	2.91
	950	13.1	12.0	2.11	15.7	14.4	2.19	18.7	17.0	2.29	22.1	19.6	2.39	26.0	23.7	2.53	30.4	30.4	2.69	35.2	35.2	2.91
	1050	13.2	12.2	2.14	15.9	14.6	2.22	18.9	17.2	2.31	22.3	19.8	2.41	26.2	23.9	2.54	30.6	30.6	2.71	35.5	35.5	2.91
70	850	12.7	11.7	2.16	15.4	14.1	2.26	18.3	16.7	2.36	21.6	19.2	2.48	25.4	23.1	2.62	29.7	29.7	2.80	34.5	34.5	3.03
	950	12.9	11.9	2.19	15.5	14.3	2.28	18.5	16.9	2.38	21.9	19.4	2.49	25.7	23.4	2.63	30.0	30.0	2.80	34.8	34.8	3.02
	1050	13.1	12.0	2.22	15.7	14.4	2.31	18.7	17.0	2.40	22.1	19.6	2.51	25.9	23.6	2.64	30.3	30.3	2.81	35.1	35.1	3.02
75	850	12.5	11.5	2.24	15.3	14.0	2.35	18.1	16.5	2.46	21.4	19.0	2.58	25.1	22.9	2.74	29.4	29.4	2.92	34.1	34.1	3.15
	950	12.7	11.7	2.27	15.4	14.2	2.37	18.3	16.7	2.47	21.6	19.2	2.59	25.4	23.1	2.73	29.7	29.7	2.91	34.4	34.4	3.14
	1050	12.9	11.9	2.30	15.6	14.3	2.40	18.5	16.9	2.50	21.8	19.4	2.61	25.6	23.3	2.74	29.9	29.9	2.92	34.7	34.7	3.14

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Heating		Indoor Section	Size	Heating	
		Capacity	Power			Capacity	Power
FC4BNF	030	1.00	1.01	CC5A/CD5A/CD5BA	030	1.00	1.05
	033	1.00	0.98		036	1.00	0.99
	036	1.00	1.00	CC5A/CD5A/CD5BW	030	1.00	1.05
F(A,B)4ANF	030	1.00	1.01	CD5A/CD5BW	036	1.00	0.99
	036	1.00	1.00		030	1.00	1.05
FD3ANA	030	1.00	1.01	CD3(A,B)A	036	1.00	0.99
FF1(A,B)NA	030	1.00	0.99		030	1.00	1.01
FG3AAA	036	1.00	1.01	CE3AA	036	1.00	1.01
FK4BNF	001	1.00	0.96		036	1.00	0.99
	002	1.00	0.92	CF5AA	—	—	—
	003	0.99	0.91		—	—	—
	004	1.00	0.88		—	—	—

See notes on pg. 17.

Heat pump heating performance continued

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F AIR																				
		-3			7			17			27			37			47			57		
EDB	CFM	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power
		Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡
38YRA036-30,-31 Outdoor Section With FC4BN(F,B)042 Indoor Section																						
65	1100	16.0	14.7	2.43	19.3	17.7	2.53	22.8	20.8	2.64	26.7	23.7	2.74	31.2	28.4	2.87	36.1	36.1	3.03	41.8	41.8	3.23
	1200	16.2	14.9	2.46	19.4	17.9	2.55	23.0	21.0	2.65	26.9	23.9	2.75	31.4	28.6	2.87	36.4	36.4	3.03	42.1	42.1	3.22
	1300	16.4	15.1	2.48	19.7	18.1	2.58	23.2	21.1	2.66	27.1	24.1	2.76	31.6	28.7	2.88	36.6	36.6	3.03	42.4	42.4	3.22
70	1100	15.7	14.5	2.52	19.1	17.5	2.64	22.6	20.6	2.75	26.5	23.5	2.87	30.9	28.1	3.00	35.7	35.7	3.17	41.3	41.3	3.37
	1200	15.9	14.6	2.55	19.2	17.7	2.66	22.8	20.8	2.76	26.7	23.7	2.87	31.1	28.3	3.00	36.0	36.0	3.16	41.6	41.6	3.36
	1300	16.1	14.8	2.57	19.4	17.8	2.68	23.0	20.9	2.78	26.9	23.9	2.88	31.3	28.5	3.01	36.2	36.2	3.16	41.9	41.9	3.35
75	1100	15.4	14.1	2.62	18.9	17.3	2.74	22.4	20.4	2.87	26.2	23.3	2.99	30.6	27.8	3.14	35.4	35.4	3.31	40.9	40.9	3.52
	1200	15.6	14.3	2.64	19.0	17.5	2.76	22.6	20.6	2.88	26.4	23.5	3.00	30.8	28.0	3.14	35.6	35.6	3.30	41.2	41.2	3.50
	1300	15.7	14.5	2.67	19.2	17.6	2.78	22.7	20.7	2.89	26.6	23.6	3.01	31.0	28.2	3.14	35.9	35.9	3.30	41.5	41.5	3.50

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Heating		Indoor Section	Size	Heating	
		Capacity	Power			Capacity	Power
FC4BN(F,B)	042	1.00	1.00	CD5A/CD5BW	036	1.00	1.01
FC4BNF	033	1.00	1.00	CC5A/CD5A/CD5BA	036	1.00	1.01
	036	1.00	1.03		042	1.00	1.01
F(A,B)4ANF	036	1.00	1.03		043	1.00	1.01
F(A,B)4AN(F,B)	042	1.00	1.00	CC5A/CD5A/CD5BW	042	1.00	1.02
FG3AAA	036	1.00	1.03		043	1.00	1.01
FK4BNF	001	1.00	1.00	CD3(A,B)A	036	1.00	1.01
	002	1.00	0.97		042	1.00	1.01
	003	0.99	0.94	CE3AA	036	1.00	1.02
	004	1.00	0.92		042	1.00	0.99
—	—	—	—	CF5AA	036	1.00	1.01

38YRA042-30 Outdoor Section With FK4BNF005 Indoor Section

65	1202	19.1	17.6	2.67	22.6	20.8	2.76	26.3	24.0	2.85	30.3	26.9	2.95	34.7	31.6	3.08	39.7	39.7	3.23	45.2	45.2	3.40
	1335	19.3	17.8	2.68	22.8	20.9	2.76	26.5	24.1	2.84	30.5	27.1	2.93	35.0	31.9	3.05	40.0	40.0	3.20	44.9	44.9	3.32
	1469	19.5	17.9	2.69	22.9	21.1	2.77	26.7	24.3	2.84	30.7	27.3	2.93	35.2	32.1	3.04	40.2	40.2	3.18	45.1	45.1	3.29
70	1202	18.8	17.3	2.77	22.3	20.5	2.88	26.0	23.7	2.98	29.9	26.6	3.09	34.3	31.2	3.22	39.2	39.2	3.38	44.7	44.7	3.58
	1335	18.9	17.4	2.78	22.5	20.7	2.88	26.2	23.9	2.97	30.2	26.8	3.07	34.6	31.5	3.20	39.5	39.5	3.34	45.0	45.0	3.51
	1469	19.1	17.6	2.80	22.7	20.8	2.89	26.4	24.0	2.97	30.4	27.0	3.07	34.8	31.7	3.18	39.8	39.8	3.33	45.0	45.0	3.46
75	1202	18.3	16.8	2.88	22.0	20.3	3.01	25.7	23.4	3.12	29.6	26.3	3.24	33.9	30.9	3.37	38.7	38.7	3.54	44.1	44.1	3.75
	1335	18.5	17.0	2.89	22.2	20.4	3.01	25.9	23.6	3.11	29.8	26.5	3.22	34.2	31.1	3.34	39.0	39.0	3.50	44.5	44.5	3.68
	1469	18.7	17.2	2.91	22.4	20.6	3.02	26.1	23.8	3.11	30.0	26.7	3.21	34.4	31.3	3.33	39.3	39.3	3.48	44.6	44.6	3.63

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Heating		Indoor Section	Size	Heating	
		Capacity	Power			Capacity	Power
FK4BNF	005	1.00	1.00	CC5A/CD5A/CD5BW	042	0.97	1.11
FK4BNB	003	0.97	1.05		043	0.99	1.12
FC4BNF	038	1.01	1.06		048	0.99	1.09
FC4BN(F,B)	042	0.99	1.11	CC5A/CD5A/CD5BC	048	0.97	1.13
	048	1.00	1.08		048	0.99	1.09
F(A,B)4AN(F,B)	042	0.99	1.11	CD3(A,B)A	042	0.99	1.12
	048	1.00	1.08		048	0.99	1.09
FG3AAA	048	0.99	1.09	CE3AA	042	0.99	1.09
CC5A/CD5A/CD5BA	042	0.99	1.12		048	0.99	1.09
	043	0.99	1.12	CF5AA	048	0.99	1.10

See notes on pg. 17.

Heat pump heating performance continued

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F AIR																				
		-3			7			17			27			37			47			57		
EDB	CFM	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power
		Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡
38YRA042-31 Outdoor Section With FK4BNB005 Indoor Section																						
65	1202	17.7	16.3	2.53	21.4	19.7	2.63	25.5	23.2	2.72	30.0	26.6	2.82	35.2	32.1	2.95	41.2	41.2	3.10	48.1	48.1	3.28
	1335	17.9	16.4	2.54	21.5	19.8	2.63	25.7	23.4	2.71	30.2	26.8	2.81	35.5	32.3	2.92	41.5	41.5	3.07	47.9	47.9	3.20
	1469	18.0	16.6	2.56	21.7	19.9	2.63	25.8	23.6	2.72	30.4	27.0	2.80	35.7	32.5	2.91	41.8	41.8	3.05	47.7	47.7	3.16
70	1202	17.3	16.0	2.64	21.1	19.4	2.74	25.2	23.0	2.85	29.6	26.3	2.95	34.8	31.7	3.09	40.7	40.7	3.25	47.5	47.5	3.45
	1335	17.5	16.1	2.65	21.3	19.6	2.75	25.4	23.2	2.84	29.9	26.5	2.94	35.1	31.9	3.06	41.0	41.0	3.21	47.8	47.8	3.38
	1469	17.7	16.3	2.66	21.5	19.7	2.75	25.6	23.3	2.84	30.0	26.7	2.93	35.3	32.1	3.05	41.3	41.3	3.19	47.9	47.9	3.33
75	1202	16.9	15.6	2.74	20.9	19.2	2.86	24.9	22.7	2.98	29.3	26.0	3.09	34.4	31.3	3.23	40.2	40.2	3.40	46.9	46.9	3.61
	1335	17.1	15.7	2.75	21.0	19.3	2.87	25.1	22.9	2.97	29.5	26.2	3.08	34.7	31.5	3.21	40.5	40.5	3.36	47.3	47.3	3.55
	1469	17.3	15.9	2.77	21.2	19.5	2.87	25.3	23.0	2.97	29.7	26.4	3.07	34.9	31.8	3.19	40.8	40.8	3.34	47.4	47.4	3.49

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Heating		Indoor Section	Size	Heating	
		Capacity	Power			Capacity	Power
FK4BNB	005	1.00	1.00	CC5A/CD5A/CD5BW	042	1.00	1.14
FK4BNF	003	1.00	1.09		043	1.00	1.13
FC4BNF	038	1.00	1.05		048	1.00	1.11
FC4BN(F,B)	042	1.00	1.13	CC5A/CD5A/CD5BC	048	1.00	1.16
	048	1.00	1.10		048	1.00	1.11
F(A,B)4AN(F,B)	042	1.00	1.13	CD3(A,B)A	042	1.00	1.13
	048	1.00	1.08		048	1.00	1.11
FG3AAA	048	1.00	1.11	CE3AA	042	1.00	1.11
CC5A/CD5A/CD5BA	042	1.00	1.13		048	1.00	1.10
	043	1.00	1.13	CF5AA	048	1.00	1.12

38YR048-30 Outdoor Section With FK4BNB006 Indoor Section

65	1350	21.2	19.5	3.02	25.5	23.4	3.16	30.3	27.6	3.30	36.1	32.9	3.48	42.0	38.2	3.65	49.2	49.2	3.89	57.5	57.5	4.17
	1500	21.4	19.7	3.02	25.7	23.6	3.15	30.5	27.8	3.27	36.4	33.2	3.43	42.3	38.5	3.60	49.6	49.6	3.82	57.7	57.7	4.05
	1650	21.5	19.8	3.03	25.8	23.7	3.14	30.7	28.0	3.26	36.7	33.4	3.41	42.6	38.8	3.56	49.9	49.9	3.78	57.2	57.2	3.96
70	1350	20.9	19.2	3.17	25.3	23.2	3.33	30.0	27.4	3.48	35.8	32.6	3.67	41.5	37.8	3.86	48.6	48.6	4.11	56.9	56.9	4.43
	1500	21.1	19.4	3.17	25.4	23.4	3.32	30.2	27.5	3.46	36.0	32.8	3.63	41.9	38.1	3.80	49.0	49.0	4.03	57.2	57.2	4.30
	1650	21.2	19.5	3.18	25.6	23.5	3.31	30.4	27.7	3.44	36.3	33.0	3.60	42.1	38.4	3.76	49.3	49.3	3.99	56.9	56.9	4.19
75	1350	20.4	18.8	3.32	25.0	23.0	3.50	29.7	27.1	3.67	35.4	32.3	3.87	41.1	37.4	4.08	48.0	48.0	4.34	56.2	56.2	4.67
	1500	20.6	19.0	3.33	25.2	23.2	3.49	29.9	27.3	3.65	35.7	32.5	3.83	41.4	37.7	4.01	48.4	48.4	4.26	56.7	56.7	4.57
	1650	20.8	19.2	3.33	25.4	23.3	3.49	30.1	27.5	3.63	35.9	32.7	3.80	41.7	37.9	3.97	48.8	48.8	4.20	57.0	57.0	4.46

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Heating		Indoor Section	Size	Heating	
		Capacity	Power			Capacity	Power
FK4BNB	006	1.00	1.00	CD5A/CD5BA	048	0.99	1.16
FC4BN(F,B)	048	1.01	1.14	CC5A/CD5A/CD5BC	048	0.98	1.21
	060	1.02	1.12		048	0.99	1.16
FC4BNB	054	1.02	1.05	CC5A/CD5A/CD5BW	060	1.00	1.12
	070	1.02	1.07		060	0.99	1.17
F(A,B)4AN(F,B)	048	1.01	1.14	CD3(A,B)A	048	0.99	1.16
	060	1.02	1.12		060	0.99	1.17
FB4ANB	070	1.02	1.07	CE3AA	048	1.00	1.16
FG3AAA	048	1.00	1.16		060	1.00	1.12
	060	1.00	1.14	CF5AA	048	0.99	1.17

See notes on pg. 17.

Heat pump heating performance continued

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES °F AIR																				
		-3			7			17			27			37			47			57		
EDB	CFM	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power	Capacity (MBtuh)		Total Power
		Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡	Total	Integ†	Kw‡
38YRA060-30 Outdoor Section With FK4BNB006 Indoor Section																						
65	1598	28.2	25.9	3.90	33.3	30.6	4.09	39.1	35.6	4.31	45.5	40.4	4.55	52.8	48.1	4.85	61.2	61.2	5.23	70.9	70.9	5.74
	1775	28.4	26.1	3.91	33.6	30.9	4.09	39.4	35.9	4.29	45.9	40.7	4.52	53.3	48.5	4.81	62.7	62.7	5.18	71.7	71.7	5.68
	1953	28.6	26.3	3.93	33.8	31.1	4.10	39.6	36.1	4.29	46.2	41.0	4.50	53.7	48.8	4.78	62.1	62.1	5.15	71.7	71.7	5.56
70	1598	27.9	25.6	4.08	33.0	30.3	4.29	38.7	35.3	4.52	45.1	40.0	4.78	52.3	47.6	5.09	60.5	60.5	5.48	70.0	70.0	6.00
	1775	28.1	25.9	4.09	33.3	30.6	4.29	39.0	35.6	4.50	45.4	40.3	4.74	52.7	48.0	5.04	61.0	61.0	5.42	70.6	70.6	5.92
	1953	28.3	26.1	4.11	33.5	30.8	4.29	39.3	35.8	4.49	45.7	40.6	4.73	53.1	48.3	5.01	61.4	61.4	5.38	71.1	71.1	5.88
75	1598	27.5	25.3	4.25	32.7	30.0	4.49	38.3	35.0	4.74	44.6	39.6	5.01	51.7	47.0	5.34	59.8	59.8	5.74	69.2	69.2	6.27
	1775	27.8	25.6	4.26	33.0	30.3	4.49	38.6	35.2	4.72	44.9	39.9	4.97	52.1	47.4	5.28	60.3	60.3	5.67	69.8	69.8	6.18
	1953	28.0	25.8	4.28	33.2	30.5	4.49	38.9	35.5	4.71	45.3	40.2	4.95	52.5	47.8	5.25	60.7	60.7	5.63	70.3	70.3	6.14

Multipliers for Determining the Performance With Other Indoor Sections

Indoor Section	Size	Heating		Indoor Section	Size	Heating	
		Capacity	Power			Capacity	Power
FK4BNB	006	1.00	1.00	FG3AAA	060	1.00	1.12
FC4BN(F,B)	060	1.00	1.08	CC5A/CD5A/CD5BA	060	1.00	1.17
FC4BNB	070	1.00	1.02	CC5A/CD5A/CD5BW	060	1.00	1.10
F(A,B)4AN(F,B)	060	1.00	1.08	CD3(A,B)A	060	1.00	1.17
FB4ANB	070	1.00	1.02	CE3AA	060	1.00	1.10

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

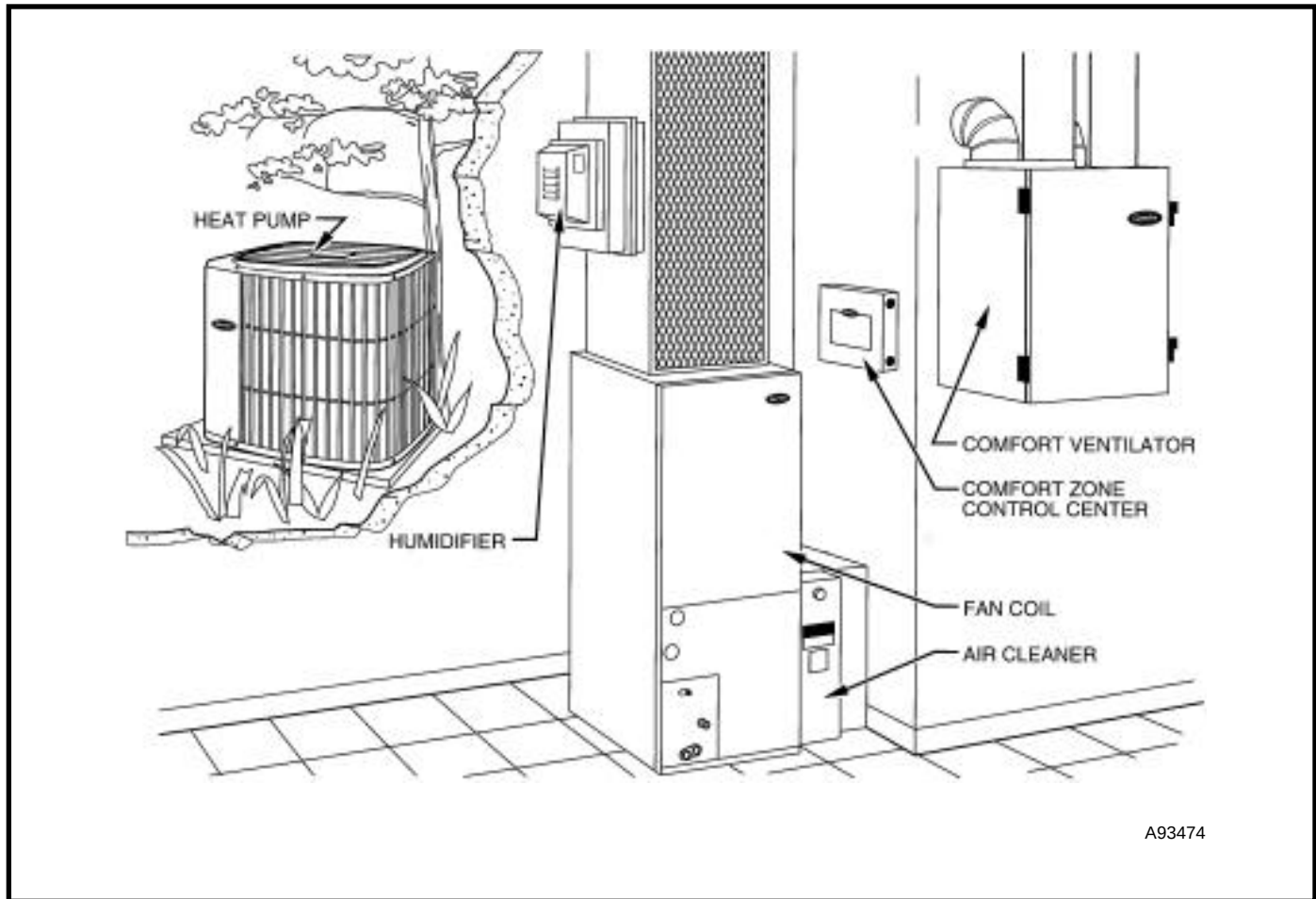
‡ The kw values include the compressor, outdoor fan motor, and indoor blower motor. The kw from supplement heaters should be added to these values to obtain total system kilowatts.

EDB—Entering Dry Bulb

System Design

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature for cooling mode is 125°F (51.7°C).
4. Minimum outdoor operating air temperature for heating mode is -30°F (-34.4°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. Maximum elevation of indoor coil above or below base of outdoor unit is: indoor coil above =50 ft/indoor coil below =150 ft (see items 8 and 9 following).
8. For interconnecting refrigerant tube lengths greater than 50 ft, consult Long-Line Application Guideline available from equipment distributor.
9. Not more than 36 in. of refrigerant tube should be buried in the ground. If necessary to bury tubes under a sidewalk, provide a minimum 6-in. vertical rise to the valve connections at the unit.
10. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
11. Mixmatches of indoor coil capacity more than 1 size larger than outdoor unit capacity may result in inadequate indoor comfort.

Matched system



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5-94



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Book	1	4
Tab	5a	5a

Page 18

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PC 101

Form 38YRA-2PD
Replaces: 38YRA-1PD