

N4H4

Performance Series Product Specifications

14 SEER HEAT PUMP

ENVIRONMENTALLY BALANCED R-410A REFRIGERANT

1½ THRU 5 TONS SPLIT SYSTEM

208/230 Volt 1-phase, 208/230 Volt 3-phase,
460 Volt 3-phase; 60 Hz

REFRIGERATION CIRCUIT

- Scroll compressors on all models
- Suction line accumulator factory installed
- Bi-flow filter-drier included for field installation
- Integrated solid state control with Time-Temperature Defrost
- Low pressure switch
- Round tube / aluminum plate fin coil

EASY TO INSTALL AND SERVICE

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

BUILT TO LAST

- Baked-on powder coat finish over galvanized steel
- Post-painted (black) coil fins
- Coated, weather-resistant cabinet screws
- Coated inlet grille with 3/8 (10mm) grille spacing for extra protection

LIMITED WARRANTY*

- 5 year parts limited warranty (including compressor and coil)
 - With timely registration, an additional 5 year parts limited warranty (including compressor and coil)

* For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



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.



Model Number	Size (ton)	Nominal Btu/hr	Min. Ckt Amps	Max. Breaker	Operating Dimensions length x width x height inches (mm)	Operating / Ship Weight lbs. (kg)
N4H418GKP	1½	18,000	11.8	20	23- 1/8 x 23- 1/8 x 35- 1/2 (587 x 587 x 902)	136/166(61/75)
N4H424GKP	2	24,000	14.2	25	25- 3/4 x 25- 3/4 x 35- 1/2 (654 x 654 x 902)	144/175(65/79)
N4H430GKP	2½	30,000	16.9	30	31- 3/16 x 31- 3/16 x 32- 1/16 (792 x 792 x 815)	158/180(72/82)
N4H436G*P	3	36,000	19.5	30	31- 3/16 x 31- 3/16 x 38- 7/8 (792 x 792 x 988)	170/201(77/91)
N4H436LKA	3	36,000	19.5	30	31- 3/16 x 31- 3/16 x 38- 7/8 (792 x 792 x 988)	170/202(77/91)
N4H442GKP	3½	42,000	24.0	40	31- 3/16 x 31- 3/16 x 38- 7/8 (792 x 792 x 988)	201/235(91/107)
N4H442LKA	3½	42,000	24.0	40	31- 3/16 x 31- 3/16 x 38- 7/8 (792 x 792 x 988)	190/225(86/101)
N4H448G*P	4	48,000	25.2	40	31- 3/16 x 31- 3/16 x 28- 11/16 (792 x 792 x 729)	197/232(89/105)
N4H460G*P	5	60,000	32.0	50	31- 3/16 x 31- 3/16 x 32- 1/16 (792 x 792 x 815)	212/248(96/113)

* K = 208- 230V Single- Phase; H = 208/230V Three- Phase; L = 460V Three- Phase

OUTDOOR UNIT MODEL NUMBER IDENTIFICATION GUIDE (single phase)											
Digit Position:	1	2	3	4	5, 6	7	8	9	10	11	12
Example Part Number:	N	4	H	4	18	G	K	P	1	0	1
4 = R- 410A		REFRIGERANT									
H = Heat Pump			TYPE								
4 = 14 SEER		NOMINAL EFFICIENCY									
18 = 18,000 BTUH = 1½ tons 24 = 24,000 BTUH = 2 tons 30 = 30,000 BTUH = 2½ tons 36 = 36,000 BTUH = 3 tons 42 = 42,000 BTUH = 3½ tons 48 = 48,000 BTUH = 4 tons 60 = 60,000 BTUH = 5 tons											
										NOMINAL CAPACITY	
G = Coil Guard Grille, 3/8 (10mm) spacing L = Aluminum Coil						VARIATIONS					
K = 208- 230- 1- 60 H = 208/230- 3- 60 L = 460- 3- 60						VOLTAGE					
Major Series or Variation (P = no HPS)											
Minor Series											
Extra Digit											
Extra Digit											

ACCESSORIES PART NUMBER IDENTIFICATION GUIDE									
Digit Position:	1	2	3	4	5	6, 7	8, 9	10, 11	
Example Part Number:	N	A	S	A	0	01	01	CH	
N = Non- Branded		BRANDING							
A = Accessory		PRODUCT GROUP							
S = Split System (AC & HP)			KIT USAGE						
A = Original B = 2nd Generation				MAJOR SERIES					
0 = Generic or Not Applicable									
4 = R- 410A				REFRIGERANT					
Product Identifier Number									
Package Quantity									
Type of Kit(Example: CH = Crankcase Heater)									

PHYSICAL DATA

UNIT SERIES	18GKP	24GKP	30GKP	36G*P, LKA	42GKP, LKA	48G*P	60G*P
Compressor Type	Scroll						
REFRIGERANT	R- 410A						
Control	TXV (R- 410A Hard Shutoff)						
Charge lb (kg)	5.3 (2.4)	5.6 (2.5)	6.4 (2.9)	7.67 (3.48)	8.25 (3.74)	8.68 (3.94)	10.6 (4.81)
COND FAN	Forward Swept or Propeller Type, Direct Drive						
Air Discharge	Vertical						
Motor HP	1/12	1/10	1/4	1/5	1/4	1/4	1/4
Motor RPM	1100	1100	1100	1100	1100	1100	800
Air Qty (CFM)	1792	2196	3365	2365	3700	3365	3700
VALVE CONNECT. (In. ID)							
Vapor	5/8	5/8	3/4	3/4	7/8	7/8	7/8
Liquid	3/8						
REFRIGERANT TUBES** (In. OD)							
Rated Vapor	5/8	5/8	3/4	3/4	7/8	7/8	1- 1/8
Max Liquid Line	3/8						

* K = 208- 230V Single- Phase; H = 208/230V Three- Phase; L = 460V Three- Phase

** 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.

ELECTRICAL DATA

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		
18GKP	208- 230/1	253	197	48.0	9.0	0.50	11.8	20
24GKP				62.9	10.9	0.60	14.2	25
30GKP				72.5	13.5	1.40	18.3	30
36GKP, LKA				75.0	14.7	1.10	19.5	30
42GKP, LKA				105.5	18.1	1.40	24.0	40
48GKP				108.0	19.0	1.40	25.2	40
60GKP	208/230/3	253	187	144.2	24.4	1.52	32.0	50
36GHP				70.0	8.46	1.10	11.7	20
48GHP				123.0	10.44	1.40	14.5	25
60GHP	460/3	506	414	110.0	15.96	1.52	21.5	30
36GLP				31.0	3.85	0.60	5.4	15
48GLP				60.0	6.0	0.77	8.3	15
60GLP				52.0	7.75	0.77	10.5	15

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

** 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 2007 requirements of ASHRAE Standards 90.1

A- WEIGHTED SOUND POWER

UNIT SIZE	STANDARD RATING (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dB, without tone adjustment)						
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
18GKP	69	65	64	65	67	59	57	54
24GKP	76	66	70	70	70	67	64	61
30GKP	77	71	74	75	73	69	66	61
36GKP, GHP, GLP, LKA	78	76	75	75	73	69	67	62
42GKP, LKA	76	70	74	71	71	66	64	58
48GKP, GHP, GLP	79	72	78	77	76	70	67	61
60- GKP	73	71	74	71	69	64	61	58
60GHP, GLP	76	73	74	72	72	69	64	63

NOTE: Tested in accordance with AHRI Standard 270- 08 (not listed in AHRI).

A- WEIGHTED SOUND POWER WITH SOUND HOOD

UNIT SIZE	STANDARD RATING	TYPICAL OCTAVE BAND SPECTRUM (dB, without tone adjustment)						
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
18GKP	68	66	65	64	65	59	56	52
24GKP	74	67	70	70	68	65	61	56
30GKP	77	72	74	75	72	69	66	60
36GKP, GHP, GLP, LKA	78	76	76	76	73	69	65	60
42GKP, LKA	74	71	74	70	70	65	62	56
48GKP, GHP, GLP	79	73	79	77	75	70	67	61
60GKP	73	72	75	70	68	63	60	55
60GHP, GLP	76	72	72	71	72	69	64	63

NOTE: Tested in accordance with AHRI Standard 270- 08 (not listed in AHRI).

CHARGING SUBCOOLING (TXV- TYPE EXPANSION DEVICE)

UNIT SIZE- SERIES	REQUIRED SUBCOOLING ° F (° C)
18GKP	11 (6.1)
24GKP	11 (6.1)
30GKP	10 (5.6)
36GKP, LKA	10 (5.6)
36GHP, GLP	11 (6.1)
42GKP, LKA	10 (5.6)
48GKP, GHP, GLP	14 (7.7)
60GKP, GHP, GLP	15 (8.3)

HP ONLY REPLACEMENT WITH PISTON INDOORS

When the N4H4 is used as a replacement component in a system with a piston fan coil, use the indoor piston size specified below:

UNIT SIZE	PISTON SIZE		
	FEM4P	FMA4	FM(C,U)4P
18	0.052	0.050	0.050
24	0.057	0.057	0.056
30	0.067	0.070	0.067
36	0.070	0.072	0.069
42	0.078		
48	0.084		
60			

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for HP systems with R- 410A refrigerant:

Vapor Line Sizing and Cooling Capacity Losses - R-410A Refrigerant 1- Stage Heat Pump Applications

Unit Nominal Size (Btuh)	Acceptable Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%) Total Equivalent Line Length (ft)											
		Standard Application			Long Line Application Requires Accessories								
		25 (7.62)	50 (15.2)	80 (24.4)	80+ (24.4+)	100 (30.48)	125 (38.10)	150 (45.72)	175 (53.34)	200 (60.96)	225 (68.58)	250 (76.20)	
18000 1- Stage HP	1/2	1	2	3	3	4	6	7	8	9	10	12	
	5/8	0	0	1	1	1	1	2	2	3	3	3	
24000 1- Stage HP	5/8	0	1	1	1	2	3	3	4	4	5	6	
	3/4	0	0	0	0	0	1	1	1	1	1	2	
30000 1- Stage HP	5/8	1	2	3	3	3	4	5	6	7	8	9	
	3/4	0	0	1	1	1	1	2	2	2	3	3	
36000 1- Stage HP	7/8	0	0	0	0	0	1	1	1	1	1	1	
	5/8	1	2	4	4	5	6	7	9	10	11	13	
	3/4	0	0	1	1	1	2	2	3	3	4	4	
42000 1- Stage HP	7/8	0	0	0	0	0	1	1	1	1	2	2	
	3/4	0	1	2	2	2	3	4	4	5	6	6	
48000 1- Stage HP	7/8	0	0	1	1	1	1	2	2	2	3	3	
	3/4	0	1	2	2	3	4	5	5	6	7	8	
60000 1- Stage R- 410A HP	7/8	0	0	1	1	1	2	2	2	3	3	4	
	3/4	1	2	4	4	5	6	7	9	10	11	12	
	1 1/8	0	0	0	0	1	1	1	1	1	1	2	

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

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

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

REFRIGERANT PIPING LENGTH LIMITATIONS

Maximum Line Lengths:

The maximum allowable total equivalent length for heat pumps varies 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 outdoor 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	200 (61)	250 (76.2)	N/A
Outdoor unit ABOVE indoor unit	200 (61)	250 (76.2)	200 (61)
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 R- 410A 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)
18000 HP with R- 410A	3/8	250*	250*	250*	250*	250*	250*	250*
24000 HP with R- 410A	3/8	250*	250*	250*	250*	250*	250*	250*
30000 HP with R- 410A	3/8	250*	250*	250*	250*	250*	250*	250*
36000 HP with R- 410A	3/8	250*	250*	250*	250*	250*	250*	250*
42000 HP with R- 410A	3/8	250*	250*	250*	250*	250*	250*	150
48000 HP with R- 410A	3/8	250*	250*	250*	250*	230	160	- -
60000 HP with R- 410A	3/8	250*	225*	190	150	110	- -	- -

* Maximum actual length not to exceed 200 ft (61 m)

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

-- = outside acceptable range

LONG LINE APPLICATIONS

An application is considered Long Line when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Heat Pump systems, the chart below shows when an application is considered Long Line. Beyond these lengths, long line accessories are required:

HP WITH R- 410A REFRIGERANT LONG LINE DESCRIPTION ft (m)
Beyond these lengths, long line accessories are required

Liquid Line Size	Units On Same Level	Outdoor Below Indoor	Outdoor Above Indoor
3/8	80 (24.4)	20 (6.1) vertical or 80 (24.4) total	80 (24.4)

Note: See Long Line Guideline for details

TESTED AHRI COMBINATION RATINGS*

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

For AHRI ratings certificates, please refer to the AHRI directory. www.ahridirectory.org

Additional ratings and system combinations can be accessed via the Maratherm database:

<http://www.icpeqp.com/AHRIratings/ratings.aspx?Brand=Maratherm>

Or scan this QR code:



Model Number	Indoor Coil Model Number	Cooling Capacity	EER	SEER	High Temp		HSPF	Low Temp	
					E Capacity	E COP		H Capacity	H COP
N4H418GKP	FEM4X18**BL	17,800	11.5	14	17,600	3.72	8.2	10,400	2.40
N4H424GKP	FEM4X24**CL	22,200	11.5	14	22,200	3.84	8.2	13,200	2.54
N4H430GKP	FEM4X30**BL	28,600	11.5	14	28,600	3.62	8.2	17,100	2.44
N4H436GKP, LKA	FEM4X36**BL	33,000	11.5	14	33,800	3.62	8.2	20,800	2.44
N4H436G(H/L)P	FEM4X36**BL	33,000	11.0	14	33,000	3.64	8.2	20,800	2.46
N4H442GKP, LKA	FEM4X42**BL	40,000	11.5	14	41,000	3.62	8.2	25,200	2.50
N4H448GKP	FEM4X48**BL	46,000	11.5	14	45,500	3.64	8.2	27,800	2.56
N4H448G(H/L)P	FEM4X48**BL	46,000	11.5	14	45,500	3.64	8.2	27,800	2.56
N4H460GKP	FXM4X60**AL	57,000	11.5	14	54,500	3.70	8.2	33,000	2.56
N4H460G(H/L)P	FXM4X60**AL	57,000	11.5	14	54,500	3.70	8.2	33,000	2.56

* AHRI = Air Conditioning, Heating & Refrigeration Institute

* 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 (-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

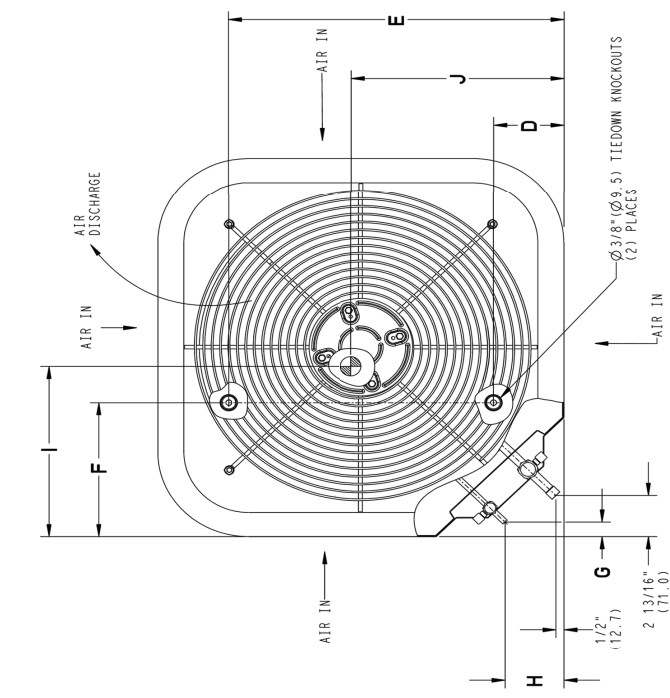
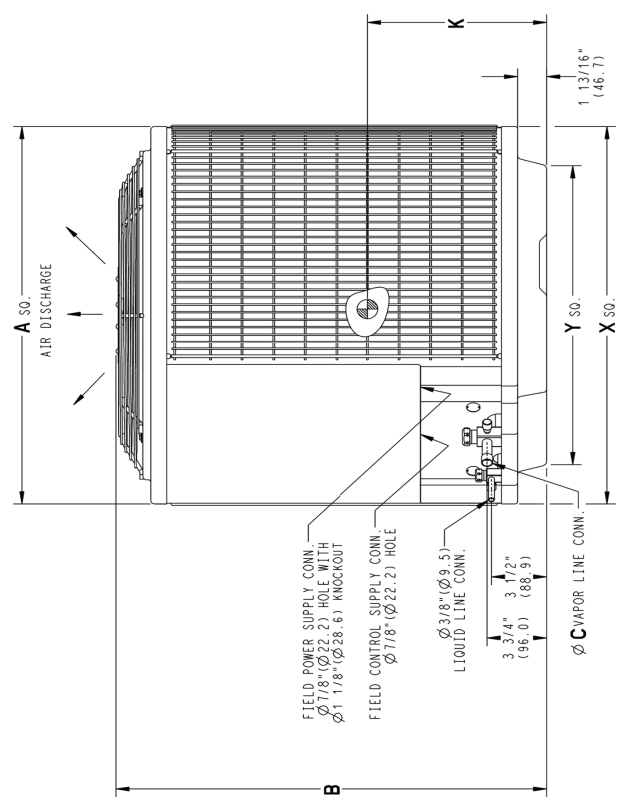
DIMENSIONS

UNIT	SERIES	ELECTRICAL CHARACTERISTICS		A		B		C		D		E		F		G		H		I		J		K		OPERATING WEIGHT		SHIPPING WEIGHT		SHIPPING LENGTH / WIDTH (SQ.)		SHIPPING HEIGHT													
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM												
N4H418GKP101	1	Y	N	23	1/8	587.3	35	1/2	902.0	5/8	15.9	4	7/16	113.0	18	1/16	459.0	7	13/16	197.9	1	1/8	28.2	3	13/16	97.4	11	27/94	15	3/4	400.1	12	304.8	136	61.7	166	75.3	25	1/4	641.5	40	1015.8			
N4H424GKP101	1	Y	N	25	3/4	654.0	35	1/2	901.4	5/8	15.9	4	7/16	113.0	21	1/4	539.9	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	12	304.8	13	1/4	336.6	13	1/2	342.9	144	65.3	175	79.4	27	7/8	708.2	40	1015.8		
N4H430GKP101	1	Y	N	31	3/16	792.5	32	1/16	815.1	3/4	19.1	6	9/16	166.1	24	11/16	626.3	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	15	381.0	11	27/94	16	406.4	158	71.7	180	81.6	33	5/16	846.6	36	5/8	929.5			
N4H436GKP201	2	Y	N	31	3/16	792.5	28	11/16	726.7	3/4	19.1	6	9/16	166.1	24	11/16	626.3	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	15	381.0	14	355.6	10	3/4	273.1	170	77.1	201	91.2	33	5/16	846.6	33	3/16	843.1		
N4H442GKP101	1	Y	N	31	3/16	792.5	38	7/8	997.8	7/8	22.2	6	9/16	166.1	24	11/16	626.3	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	15	412.8	14	374.7	15	3/4	400.1	16	412.8	212	96.2	248	112.5	33	5/16	846.6	36	5/8	929.5
N4H448GKP101	1	Y	N	31	3/16	792.5	28	11/16	726.7	7/8	22.2	6	9/16	166.1	24	11/16	626.3	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	16	412.8	14	374.7	15	3/4	400.1	16	412.8	212	96.2	248	112.5	33	5/16	846.6	36	5/8	929.5
N4H460GKP101	1	Y	N	31	3/16	792.5	32	1/16	815.1	7/8	22.2	6	9/16	166.1	24	11/16	626.3	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	15	381.0	14	374.7	15	3/4	400.1	16	412.8	212	96.2	248	112.5	33	5/16	846.6	36	5/8	929.5
N4H436LKA101	1	Y	N	31	3/16	792.5	28	11/16	726.7	3/4	19.1	6	9/16	166.1	24	11/16	626.3	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	15	381.0	14	374.7	15	3/4	400.1	16	412.8	212	96.2	248	112.5	33	5/16	846.6	36	5/8	929.5
N4H442LKA101	1	Y	N	31	3/16	792.5	38	7/8	997.8	7/8	22.2	6	9/16	166.1	24	11/16	626.3	9	1/8	231.3	1	1/8	28.2	3	13/16	97.4	14	374.7	15	3/4	400.1	16	412.8	212	96.2	248	112.5	33	5/16	846.6	36	5/8	929.5		

208-230-1-60
208/230-3-60
460-3-60
575-3-60
Y=YES
N=NO

NOTES:

1. CENTER OF GRAVITY



NOTE: ALL DIMENSIONS IN INCH (MM)

U.S. ECCN: Not Subject to Regulation (N.S.R.)

UNIT SIZE	"X"		"Y"			
	MINIMUM GROUND MOUNTING PAD APPLICATION DIMENSIONS	MINIMUM ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS	MINIMUM GROUND MOUNTING PAD APPLICATION DIMENSIONS	MINIMUM ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS		
18	23	1/8	587.3	17	7/8	454.6
24	25	3/4	654.0	20	7/16	518.5
30,36,42,48,60	31	3/16	792.5	22	15/16	583.2
35	35	3/4	888.0	26	3/4	679.7

DETAILED COOLING CAPACITIES

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																		
CFM	EWB ° F (° C)	75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)			
		Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	
		Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	
N4H418GKP Outdoor Section With FEM4X18**BL Indoor Section																				
525	72 (22.2)	21.99	11.23	1.19	20.64	10.68	1.36	19.27	10.11	1.54	17.87	9.55	16.42	8.98	14.95	8.40	13.51	7.83	12.04	2.24
	67 (19.4)	19.94	13.74	1.18	18.72	13.15	1.35	17.47	12.55	1.53	16.18	11.95	14.86	11.33	13.47	10.71	12.47	10.21	11.76	2.22
	63 (17.2)††	18.46	13.21	1.18	17.33	12.63	1.35	16.16	12.04	1.53	14.96	11.44	13.73	10.83	12.47	10.21	11.76	10.21	11.76	2.22
	62 (16.7)	18.10	16.18	1.18	17.00	15.54	1.34	15.88	14.73	1.53	14.73	14.19	13.63	13.63	12.59	12.59	12.59	12.59	12.59	2.22
	57 (13.9)	17.41	17.41	1.18	16.52	16.52	1.34	15.58	15.58	1.52	14.62	14.62	13.61	13.61	12.57	12.57	12.57	12.57	12.57	2.22
600	72 (22.2)	22.45	11.80	1.20	21.05	11.23	1.37	19.62	10.65	1.56	18.16	10.07	16.67	9.49	15.15	8.90	13.61	13.61	13.61	2.25
	67 (19.4)	20.38	14.65	1.20	19.11	14.03	1.37	17.80	13.41	1.55	16.47	12.79	15.10	12.15	13.71	11.50	12.47	12.47	2.24	
	63 (17.2)††	18.88	14.06	1.19	17.70	13.45	1.36	16.49	12.84	1.54	15.24	12.21	13.97	11.58	12.67	10.94	12.67	10.94	2.23	
	62 (16.7)	18.56	17.37	1.19	17.43	16.67	1.36	16.27	16.27	1.54	15.23	15.23	14.16	14.16	13.06	13.06	13.06	13.06	2.23	
	57 (13.9)	18.19	18.19	1.19	17.23	17.23	1.36	16.24	16.24	1.54	15.21	15.21	14.14	14.14	13.04	13.04	13.04	13.04	2.23	
675	72 (22.2)	22.80	12.34	1.22	21.36	11.75	1.39	19.88	11.16	1.57	18.39	10.57	17.86	9.97	15.30	9.37	13.87	13.87	13.87	2.27
	67 (19.4)	20.71	15.51	1.21	19.40	14.88	1.38	18.06	14.23	1.56	16.69	13.58	15.29	12.92	13.87	12.24	13.87	12.24	2.25	
	63 (17.2)††	19.20	14.86	1.21	17.98	14.23	1.37	16.74	13.60	1.56	15.46	12.95	14.15	12.29	12.83	11.62	12.83	11.62	2.25	
	62 (16.7)	18.96	18.41	1.21	17.86	17.86	1.37	16.80	16.80	1.56	15.72	15.72	14.60	14.60	13.44	13.44	13.44	13.44	2.25	
	57 (13.9)	18.84	18.84	1.21	17.83	17.83	1.37	16.78	16.78	1.56	15.70	15.70	14.58	14.58	13.42	13.42	13.42	13.42	2.25	

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																		
CFM	EWB ° F (° C)	75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)			
		Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	
		Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	
N4H424GKP Outdoor Section With FEM4X24**CL Indoor Section																				
700	72 (22.2)	27.88	14.26	1.36	25.95	13.50	1.61	24.01	12.73	1.91	22.05	11.96	20.07	11.19	18.05	10.40	16.40	13.38	10.97	3.12
	67 (19.4)	25.38	17.64	1.37	23.61	16.80	1.62	21.83	15.96	1.91	20.05	15.11	18.22	14.25	16.40	13.38	11.02	15.98	11.61	3.16
	63 (17.2)††	23.55	16.97	1.37	21.91	16.14	1.62	20.26	15.30	1.92	18.58	14.46	16.90	13.62	15.50	10.97	13.62	13.62	10.97	3.05
	62 (16.7)	23.71	18.90	1.39	21.59	19.96	1.62	20.00	18.99	1.92	18.55	17.64	16.97	16.97	15.48	15.48	15.48	15.48	15.48	3.13
	57 (13.9)	22.57	22.57	1.38	21.19	21.19	1.63	19.80	19.80	1.92	18.39	18.39	16.94	16.94	15.46	15.46	15.46	15.46	15.46	3.13
800	72 (22.2)	28.38	14.99	1.38	26.39	14.20	1.63	24.38	13.41	1.92	22.36	12.61	20.33	11.82	18.26	11.02	16.61	14.36	11.61	3.14
	67 (19.4)	25.85	18.82	1.38	24.03	17.94	1.64	22.20	17.06	1.93	20.35	16.17	18.49	15.28	16.61	14.36	13.66	13.66	11.61	3.16
	63 (17.2)††	24.02	18.06	1.39	22.32	17.20	1.64	20.62	16.33	1.94	18.90	15.45	17.16	14.57	15.41	13.66	13.66	13.66	11.61	3.16
	62 (16.7)	23.75	22.40	1.39	22.17	21.26	1.64	20.60	20.60	1.93	19.10	19.10	17.57	17.57	16.00	16.00	16.00	16.00	16.00	3.15
	57 (13.9)	23.50	23.50	1.39	22.04	22.04	1.64	20.57	20.57	1.93	19.07	19.07	17.55	17.55	15.98	15.98	15.98	15.98	15.98	3.15
900	72 (22.2)	28.76	15.68	1.39	26.71	14.88	1.64	24.66	14.06	1.94	22.59	13.25	20.51	12.43	18.41	11.61	16.43	14.49	11.61	3.17
	67 (19.4)	26.21	19.94	1.40	24.35	19.02	1.65	22.47	18.11	1.95	20.59	17.18	18.69	16.24	16.79	15.27	15.27	15.27	15.27	3.16
	63 (17.2)††	24.38	19.10	1.40	22.64	18.20	1.66	20.89	17.30	1.95	19.14	16.39	17.37	15.45	15.59	14.49	14.49	14.49	14.49	3.17
	62 (16.7)	24.53	22.87	1.40	23.10	20.91	1.66	21.23	19.66	1.95	19.66	19.66	18.06	18.06	16.43	16.43	16.43	16.43	16.43	3.17
	57 (13.9)	24.27	24.27	1.40	22.74	22.74	1.66	21.20	21.20	1.95	19.63	19.63	18.04	18.04	16.41	16.41	16.41	16.41	16.41	3.17

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DETAILED COOLING CAPACITIES (CONTINUED)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																							
		75 (23.9)				85 (29.4)				95 (35)				105 (40.6)				115 (46.1)				125 (51.7)			
		CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**				
Total	Sens†			Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†					
N4H430GKP Outdoor Section With FEM4X30**BL Indoor Section																									
875	72 (22.2)		34.32	17.82	1.83	32.63	17.00	2.11	30.87	16.16	2.45	29.00	15.31	2.83	27.02	14.44	3.29	24.90	13.54	3.82					
	67 (19.4)		31.12	21.91	1.83	29.57	21.02	2.11	27.96	20.13	2.45	26.25	19.22	2.83	24.44	18.28	3.29	22.51	17.31	3.82					
	63 (17.2)††		28.80	21.05	1.83	27.36	20.17	2.12	25.86	19.29	2.45	24.27	18.39	2.83	22.59	17.46	3.29	20.79	16.50	3.82					
	62 (16.7)		28.27	25.88	1.83	26.88	24.90	2.12	25.44	23.90	2.45	23.95	22.83	2.83	22.44	22.44	3.29	20.97	20.97	3.82					
	57 (13.9)		27.33	27.33	1.83	26.19	26.19	2.12	25.01	25.01	2.45	23.76	23.76	2.83	22.41	22.41	3.29	20.95	20.95	3.82					
1050	72 (22.2)		35.21	19.02	1.86	33.42	18.16	2.15	31.57	17.30	2.49	29.61	16.42	2.88	27.53	15.51	3.33	25.31	14.58	3.87					
	67 (19.4)		31.94	23.85	1.87	30.30	22.92	2.15	28.60	21.97	2.49	26.81	21.01	2.88	24.92	20.01	3.33	22.91	18.98	3.86					
	63 (17.2)††		29.58	22.85	1.87	28.06	21.93	2.15	26.47	21.00	2.49	24.81	20.04	2.88	23.05	19.06	3.33	21.19	18.04	3.87					
	62 (16.7)		29.18	28.33	1.87	27.76	27.51	2.15	26.36	26.36	2.49	24.99	24.99	2.87	23.53	23.53	3.33	21.94	21.94	3.86					
	57 (13.9)		28.84	28.84	1.87	27.62	27.62	2.15	26.33	26.33	2.49	24.96	24.96	2.87	23.50	23.50	3.33	21.91	21.91	3.87					
1125	72 (22.2)		35.51	19.52	1.88	33.70	18.65	2.17	31.81	17.78	2.50	29.81	16.88	2.89	27.70	15.96	3.35	25.45	15.02	3.89					
	67 (19.4)		32.22	24.66	1.88	30.55	23.70	2.17	28.82	22.74	2.50	27.00	21.75	2.89	25.08	20.73	3.35	23.05	19.66	3.88					
	63 (17.2)††		29.85	23.60	1.88	28.30	22.66	2.17	26.89	21.71	2.51	24.99	20.73	2.89	23.21	19.71	3.35	21.33	18.66	3.88					
	62 (16.7)		29.48	29.48	1.88	28.16	28.16	2.17	26.83	26.83	2.51	25.42	25.42	2.89	23.91	23.91	3.35	22.28	22.28	3.88					
	57 (13.9)		29.40	29.40	1.88	28.13	28.13	2.17	26.80	26.80	2.51	25.39	25.39	2.89	23.88	23.88	3.35	22.25	22.25	3.89					

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																							
		75 (23.9)				85 (29.4)				95 (35)				105 (40.6)				115 (46.1)				125 (51.7)			
		CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**				
Total	Sens†			Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†					
N4H436GKP, N4H436LKA Outdoor Section With FEM4X36**BL Indoor Section																									
1050	72 (22.2)		40.68	21.14	2.30	38.36	20.17	2.57	36.02	19.20	2.86	33.60	18.21	3.18	31.07	17.19	3.55	28.40	16.15	3.99					
	67 (19.4)		36.54	25.79	2.27	34.46	24.78	2.54	32.38	23.78	2.82	30.23	22.77	3.14	27.97	21.72	3.51	25.58	20.63	3.95					
	63 (17.2)††		33.59	24.68	2.24	31.70	23.70	2.51	29.79	22.73	2.80	27.83	21.74	3.11	25.76	20.71	3.49	23.57	19.64	3.93					
	62 (16.7)		32.94	30.29	2.24	31.13	29.22	2.51	29.31	28.12	2.79	27.47	26.98	3.11	25.82	24.96	3.49	24.03	23.08	3.94					
	57 (13.9)		31.69	31.69	2.23	30.22	30.22	2.50	28.74	28.74	2.79	27.19	27.19	3.11	25.53	25.53	3.49	23.74	23.74	3.94					
1200	72 (22.2)		41.59	22.19	2.36	39.16	21.19	2.63	36.70	20.18	2.91	34.18	19.17	3.23	31.53	18.12	3.60	28.77	17.05	4.04					
	67 (19.4)		37.36	27.46	2.32	35.18	26.41	2.59	33.00	25.37	2.87	30.75	24.32	3.19	28.40	23.22	3.56	25.93	22.07	4.00					
	63 (17.2)††		34.35	26.23	2.29	32.37	25.21	2.56	30.36	24.19	2.84	28.32	23.16	3.16	26.17	22.09	3.53	23.91	20.96	3.98					
	62 (16.7)		33.78	32.40	2.29	31.91	31.20	2.56	30.21	29.45	2.84	28.56	27.48	3.17	26.81	25.29	3.54	24.57	24.57	3.99					
	57 (13.9)		33.03	33.03	2.28	31.46	31.46	2.55	29.87	29.87	2.84	28.21	28.21	3.16	26.44	26.44	3.54	24.54	24.54	3.99					
1350	72 (22.2)		42.31	23.19	2.40	39.77	22.15	2.67	37.22	21.12	2.96	34.61	20.08	3.28	31.87	19.00	3.65	29.03	17.91	4.09					
	67 (19.4)		37.99	29.05	2.36	35.73	27.96	2.63	33.47	26.88	2.92	31.15	25.77	3.24	28.72	24.62	3.61	26.19	23.41	4.05					
	63 (17.2)††		34.94	27.70	2.34	32.87	26.63	2.61	30.80	25.58	2.89	28.69	24.49	3.21	26.47	23.37	3.58	24.16	22.17	4.03					
	62 (16.7)		34.52	34.22	2.34	32.84	32.10	2.61	30.87	30.87	2.89	29.10	29.10	3.21	27.23	27.23	3.59	25.22	25.22	4.04					
	57 (13.9)		34.18	34.18	2.33	32.52	32.52	2.60	30.83	30.83	2.89	29.07	29.07	3.21	27.20	27.20	3.59	25.20	25.20	4.04					

See notes on page 10

DETAILED COOLING CAPACITIES (CONTINUED)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**
CFM	EWB ° F (° C)	N4H436GHP/N4H436GLP Outdoor Section With FEM4X36**BL Indoor Section																	
		72 (22.2)	39.66	19.74	2.31	37.83	19.07	2.57	35.94	18.39	2.85	33.94	17.67	3.16	31.84	16.93	3.49	29.62	16.16
1050	67 (19.4)	35.85	24.26	2.28	34.17	23.58	2.54	32.42	22.88	2.82	30.58	22.15	3.12	28.65	21.39	3.46	26.64	20.61	3.81
	63 (17.2)††	33.11	23.27	2.27	31.53	22.59	2.53	29.89	21.88	2.80	28.15	21.14	3.11	26.35	20.38	3.44	24.46	19.58	3.80
1200	62 (16.7)	32.50	28.60	2.27	31.00	27.88	2.52	30.50	24.41	2.82	27.81	26.23	3.10	26.19	26.19	3.43	24.68	24.68	3.80
	57 (13.9)	31.37	31.37	2.26	30.16	30.16	2.52	28.89	28.89	2.80	27.56	27.56	3.10	26.14	26.14	3.43	24.65	24.65	3.80
1350	72 (22.2)	40.44	20.71	2.36	38.54	20.03	2.62	36.56	19.32	2.90	34.49	18.60	3.21	32.30	17.84	3.54	30.01	17.05	3.89
	67 (19.4)	36.57	25.81	2.33	34.82	25.10	2.59	33.00	24.40	2.87	31.10	23.65	3.17	29.10	22.87	3.50	27.02	22.05	3.86
1400	63 (17.2)††	33.79	24.71	2.32	32.16	24.02	2.57	30.43	23.29	2.85	28.65	22.53	3.15	26.77	21.74	3.48	24.83	20.91	3.84
	62 (16.7)	33.27	30.56	2.31	31.74	29.74	2.57	30.10	30.10	2.85	28.63	28.63	3.15	27.13	27.13	3.48	25.54	25.54	3.85
1575	57 (13.9)	32.63	32.63	2.31	31.36	31.36	2.57	30.01	30.01	2.85	28.59	28.59	3.15	27.09	27.09	3.48	25.51	25.51	3.85
	72 (22.2)	41.05	21.62	2.40	39.08	20.92	2.67	37.03	20.21	2.95	34.89	19.47	3.26	32.64	18.70	3.58	30.29	17.91	3.93
1650	67 (19.4)	37.13	27.29	2.38	35.32	26.58	2.64	33.44	25.84	2.92	31.48	25.07	3.22	29.43	24.25	3.55	27.31	23.39	3.90
	63 (17.2)††	34.33	26.09	2.36	32.62	25.37	2.62	30.86	24.62	2.89	29.85	23.76	3.18	27.10	23.00	3.53	25.12	22.13	3.88
1800	62 (16.7)	34.11	31.77	2.36	32.43	32.43	2.62	30.99	30.99	2.90	29.49	29.49	3.20	27.91	27.91	3.53	26.25	26.25	3.89
	57 (13.9)	33.70	33.70	2.36	32.36	32.36	2.62	30.95	30.95	2.90	29.46	29.46	3.20	27.88	27.88	3.53	26.22	26.22	3.89

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**	Capacity MBtuh	Sens†	Total System KW**
CFM	EWB ° F (° C)	N4H442GKP, N4H442LKA Outdoor Section With FEM4X42**BL Indoor Section																	
		72 (22.2)	51.32	26.41	2.69	47.64	24.87	3.06	43.91	23.32	3.47	40.04	21.72	3.95	35.98	20.06	4.53	31.71	18.34
1225	67 (19.4)	46.76	32.42	2.71	43.39	30.71	3.08	40.00	29.00	3.48	36.47	27.23	3.95	32.76	25.39	4.53	28.86	23.47	5.26
	63 (17.2)††	43.44	31.24	2.73	40.29	29.56	3.09	37.15	27.88	3.48	33.87	26.14	3.95	30.42	24.33	4.54	26.78	22.44	5.27
1400	62 (16.7)	42.63	38.26	2.73	39.57	36.35	3.09	36.51	34.43	3.48	33.36	32.42	3.95	30.05	30.05	4.53	26.91	26.91	5.27
	57 (13.9)	40.97	40.97	2.74	38.33	38.33	3.09	35.68	35.68	3.48	32.92	32.92	3.95	29.99	29.99	4.53	26.87	26.87	5.27
1575	72 (22.2)	52.31	27.67	2.71	48.51	26.09	3.09	44.64	24.49	3.51	40.66	22.84	3.99	36.46	21.13	4.56	32.09	19.36	5.28
	67 (19.4)	47.68	34.47	2.74	44.22	32.69	3.11	40.70	30.90	3.51	37.05	29.05	3.99	33.23	27.13	4.57	29.23	25.13	5.29
1800	63 (17.2)††	44.34	33.15	2.76	41.10	31.40	3.12	37.83	29.84	3.52	34.45	27.84	3.99	30.89	25.94	4.57	27.16	23.97	5.31
	62 (16.7)	43.61	40.95	2.76	40.48	38.90	3.12	37.36	36.78	3.52	34.21	34.21	3.99	31.10	31.10	4.57	27.81	27.81	5.30
2100	57 (13.9)	42.67	42.67	2.77	39.89	39.89	3.12	37.09	37.09	3.52	34.16	34.16	3.99	31.06	31.06	4.57	27.78	27.78	5.30
	72 (22.2)	53.05	28.87	2.74	49.15	27.24	3.13	45.20	25.59	3.54	41.11	23.89	4.02	36.82	22.15	4.60	32.36	20.33	5.31
2400	67 (19.4)	48.40	36.42	2.77	44.82	34.56	3.14	41.22	32.70	3.55	37.49	30.78	4.03	33.59	28.77	4.61	29.52	26.67	5.33
	63 (17.2)††	45.03	34.96	2.79	41.70	33.15	3.15	38.36	31.32	3.55	34.88	29.43	4.03	31.25	27.46	4.61	27.45	25.38	5.34
2700	62 (16.7)	44.48	43.33	2.79	41.27	41.27	3.15	38.30	38.30	3.55	35.22	35.22	4.02	31.98	31.98	4.61	28.55	28.55	5.34
	57 (13.9)	44.09	44.09	2.79	41.18	41.18	3.15	38.25	38.25	3.55	35.18	35.18	4.02	31.95	31.95	4.61	28.52	28.52	5.34

See notes on page 10

DETAILED COOLING CAPACITIES (CONTINUED)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	
Total	Sens†			Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		
N4H448GHP, N4H448GLP Outdoor Sections With FE1M4X48**BL Indoor Section																			
1400	72 (22.2)	56.85	29.73	3.01	53.80	28.52	3.49	40.3	48.99	25.86	4.63	43.14	24.39	5.33	38.94	22.80	6.14		
	67 (19.4)	51.69	36.52	3.00	48.93	35.26	3.48	4.00	42.80	32.52	4.60	39.31	30.98	5.30	35.51	29.32	6.12		
	63 (17.2)††	47.92	35.13	2.99	45.36	33.89	3.46	3.98	39.72	31.19	4.57	36.51	29.68	5.27	32.99	28.03	6.10		
	62 (16.7)	47.01	43.08	2.99	44.55	41.74	3.46	40.30	39.15	38.71	4.57	36.14	36.14	5.27	33.20	33.20	6.10		
	57 (13.9)	45.21	45.21	2.99	43.19	43.19	3.45	41.05	38.69	38.69	4.57	36.07	36.07	5.27	33.16	33.16	6.10		
1600	72 (22.2)	57.93	31.13	3.06	54.75	29.89	3.55	4.08	47.67	27.17	4.69	43.67	25.65	5.39	39.35	24.03	6.20		
	67 (19.4)	52.70	38.79	3.05	49.84	37.50	3.53	4.06	43.44	34.65	4.66	39.83	33.06	5.36	35.91	31.33	6.18		
	63 (17.2)††	48.90	37.25	3.04	46.25	35.98	3.51	4.03	40.37	33.18	4.63	37.04	31.61	5.33	33.41	29.89	6.16		
	62 (16.7)	48.09	46.04	3.04	45.55	44.58	3.51	42.90	40.14	40.14	4.63	37.35	37.35	5.34	34.25	34.25	6.17		
	57 (13.9)	47.05	47.05	3.04	44.90	44.90	3.51	42.61	40.09	40.09	4.63	37.30	37.30	5.34	34.22	34.22	6.17		
1800	72 (22.2)	58.79	32.49	3.10	55.49	31.21	3.60	4.13	48.19	28.44	4.74	44.08	26.89	5.44	39.65	25.25	6.26		
	67 (19.4)	53.52	41.02	3.10	50.54	39.67	3.58	4.11	43.95	36.73	4.72	40.23	35.06	5.42	36.23	33.24	6.24		
	63 (17.2)††	49.69	39.32	3.09	46.93	38.00	3.56	4.09	40.87	35.10	4.69	37.45	33.46	5.39	33.74	31.64	6.22		
	62 (16.7)	49.05	48.68	3.09	46.45	46.45	3.56	4.09	41.29	41.29	4.69	38.36	38.36	5.40	35.09	35.09	6.23		
	57 (13.9)	48.59	48.59	3.09	46.33	46.33	3.56	4.09	41.25	41.25	4.69	38.32	38.32	5.40	35.06	35.06	6.23		

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
		CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	
Total	Sens†			Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		
N4H460GHP, N4H460GLP Outdoor Sections With FX1M4X60**AL Indoor Section																			
1750	72 (22.2)	69.71	36.22	3.67	66.16	34.89	4.27	4.99	58.68	32.11	5.83	54.60	30.60	6.84	50.26	29.01	8.03		
	67 (19.4)	63.53	44.80	3.64	60.33	43.43	4.24	4.96	53.50	40.54	5.80	49.79	38.98	6.81	45.77	37.30	7.99		
	63 (17.2)††	59.03	43.14	3.62	56.06	41.79	4.22	4.93	49.73	38.91	5.78	46.26	37.35	6.78	42.53	35.68	7.96		
	62 (16.7)	57.95	53.13	3.62	55.06	51.68	4.22	4.93	49.00	48.47	5.77	45.84	45.84	6.77	42.75	42.75	7.96		
	57 (13.9)	56.08	56.08	3.61	53.71	53.71	4.22	4.92	48.62	48.62	5.77	45.78	45.78	6.77	42.69	42.69	7.96		
2000	72 (22.2)	70.94	37.98	3.74	67.26	36.62	4.35	5.06	59.50	33.78	5.92	55.29	32.23	6.92	50.82	30.62	8.11		
	67 (19.4)	64.73	47.70	3.71	61.36	46.27	4.32	5.03	54.29	43.30	5.88	50.43	41.67	6.89	46.33	39.96	8.08		
	63 (17.2)††	60.18	45.83	3.69	57.08	44.43	4.30	5.01	50.51	41.48	5.86	46.93	39.86	6.86	43.09	38.13	8.05		
	62 (16.7)	59.24	56.92	3.69	56.27	55.28	4.29	5.01	50.44	50.44	5.86	47.43	47.43	6.87	44.15	44.15	8.06		
	57 (13.9)	58.35	58.35	3.68	55.83	55.83	4.29	5.01	50.38	50.38	5.86	47.36	47.36	6.86	44.10	44.10	8.06		
2250	72 (22.2)	71.87	39.65	3.81	68.08	38.26	4.42	5.14	60.10	35.37	5.99	55.78	33.79	7.01	51.19	32.15	8.20		
	67 (19.4)	65.60	50.45	3.78	62.14	48.99	4.39	5.11	54.86	45.93	5.96	50.94	44.26	6.97	46.73	42.44	8.17		
	63 (17.2)††	61.04	48.39	3.76	57.85	46.95	4.37	5.09	51.08	43.89	5.94	47.42	42.22	6.95	43.49	40.40	8.14		
	62 (16.7)	60.36	60.36	3.76	57.65	57.65	4.37	5.09	51.89	51.89	5.94	48.73	48.73	6.96	45.28	45.28	8.15		
	57 (13.9)	60.24	60.24	3.76	57.57	57.57	4.37	5.09	51.83	51.83	5.94	48.66	48.66	6.95	45.23	45.23	8.15		

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.
 ‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).
 # Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240-2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.
 ** Sys. kw is total of indoor and outdoor unit kilowatts.
 †† At TVA rating indoor condition (75°F db/63°F ewb). All other indoor air temperatures are at 80°F ecb.
 NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.
 EWB — Entering Wet Bulb

HEAT PUMP HEATING PERFORMANCE

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES ° F (° C)																							
EDB ° F (° C)	CFM	-3 (19.4)			7 (-13.9)			17 (-8.3)			27 (-2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
		Capacity MBtuh	Total Sys-tem KW	Integ	Capacity MBtuh	Total Sys-tem KW	Integ	Capacity MBtuh	Total Sys-tem KW	Integ	Capacity MBtuh	Total Sys-tem KW	Integ	Capacity MBtuh	Total Sys-tem KW	Integ	Capacity MBtuh	Total Sys-tem KW	Integ	Capacity MBtuh	Total Sys-tem KW	Integ	Capacity MBtuh	Total Sys-tem KW	Integ
N4H419GKP Outdoor Section With FEM4X18**BL Indoor Section																									
65	525	5.99	1.15	5.51	8.26	7.59	1.19	10.57	9.64	1.22	13.16	11.68	1.26	15.35	13.97	1.30	17.67	17.67	1.35	20.14	20.14	1.42	22.47	22.47	1.47
	600	6.10	1.15	5.62	8.39	7.71	1.18	10.74	9.79	1.21	13.32	11.83	1.25	15.55	14.15	1.28	17.93	17.93	1.32	20.47	20.47	1.38	22.59	22.59	1.42
	675	6.20	1.16	5.70	8.49	7.80	1.18	10.89	9.93	1.21	13.46	11.95	1.24	15.72	14.30	1.26	18.12	18.12	1.30	20.66	20.66	1.34	22.59	22.59	1.38
70	525	5.67	1.20	5.22	7.93	7.28	1.24	10.23	9.33	1.26	12.87	11.43	1.33	15.06	13.70	1.37	17.34	17.34	1.42	19.76	19.76	1.49	22.14	22.14	1.55
	600	5.78	1.20	5.32	8.06	7.41	1.24	10.40	9.48	1.27	13.05	11.59	1.31	15.26	13.88	1.34	17.60	17.60	1.39	20.09	20.09	1.45	22.30	22.30	1.49
	675	5.87	1.21	5.40	8.18	7.51	1.24	10.54	9.61	1.27	13.19	11.72	1.30	15.43	14.04	1.32	17.81	17.81	1.37	20.33	20.33	1.41	22.33	22.33	1.45
75	525	5.29	1.25	4.87	7.57	6.95	1.30	9.87	9.00	1.34	12.57	11.16	1.39	14.77	13.44	1.43	17.02	17.02	1.49	19.39	19.39	1.56	21.80	21.80	1.62
	600	5.40	1.26	4.97	7.70	7.08	1.29	10.04	9.16	1.33	12.75	11.32	1.37	14.97	13.62	1.41	17.27	17.27	1.45	19.70	19.70	1.52	21.99	21.99	1.56
	675	5.51	1.27	5.07	7.82	7.19	1.30	10.18	9.28	1.33	12.90	11.46	1.36	15.14	13.78	1.39	17.47	17.47	1.43	19.96	19.96	1.49	22.06	22.06	1.52
N4H424GKP Outdoor Section With FEM4X24**CL Indoor Section																									
65	700	8.29	1.37	7.62	10.72	9.85	1.41	13.41	12.23	1.46	16.45	14.61	1.53	19.28	17.54	1.58	22.32	22.32	1.65	25.61	25.61	1.71	28.37	28.37	1.77
	800	8.42	1.37	7.75	10.88	10.00	1.42	13.64	12.43	1.46	16.64	14.77	1.51	19.50	17.74	1.56	22.57	22.57	1.62	25.83	25.83	1.67	28.66	28.66	1.72
	900	8.54	1.38	7.86	11.02	10.13	1.42	13.81	12.59	1.46	16.80	14.92	1.50	19.69	17.92	1.55	22.80	22.80	1.60	25.95	25.95	1.64	28.64	28.64	1.69
70	700	7.86	1.42	7.23	10.31	9.48	1.47	13.00	11.86	1.53	16.17	14.36	1.60	18.96	17.25	1.66	21.92	21.92	1.73	25.22	25.22	1.80	28.24	28.24	1.86
	800	8.00	1.43	7.36	10.47	9.62	1.48	13.20	12.04	1.52	16.35	14.52	1.58	19.18	17.46	1.64	22.20	22.20	1.69	25.48	25.48	1.75	28.34	28.34	1.81
	900	8.12	1.44	7.47	10.62	9.76	1.48	13.36	12.18	1.52	16.50	14.65	1.58	19.36	17.62	1.62	22.42	22.42	1.67	25.64	25.64	1.72	28.35	28.35	1.77
75	700	7.43	1.48	6.84	9.90	9.10	1.54	12.60	11.49	1.60	15.87	14.10	1.68	18.65	16.97	1.74	21.63	21.63	1.81	24.81	24.81	1.88	27.89	27.89	1.95
	800	7.56	1.49	6.96	10.06	9.25	1.54	12.79	11.66	1.59	16.06	14.27	1.66	18.86	17.16	1.71	21.87	21.87	1.78	25.11	25.11	1.84	28.00	28.00	1.90
	900	7.68	1.50	7.07	10.20	9.37	1.54	12.95	11.80	1.59	16.22	14.40	1.65	19.04	17.32	1.70	22.06	22.06	1.76	25.29	25.29	1.81	28.05	28.05	1.86
N4H430GKP Outdoor Section With FEM4X30**BL Indoor Section																									
65	875	10.53	1.83	9.68	13.53	12.44	1.89	17.14	15.63	1.97	20.47	18.18	2.05	24.29	22.11	2.15	28.57	28.57	2.26	33.43	33.43	2.39	37.94	37.94	2.49
	1050	10.79	1.84	9.93	13.85	12.73	1.90	17.42	15.89	1.97	20.82	18.49	2.04	24.72	22.50	2.12	29.10	29.10	2.22	33.85	33.85	2.33	37.92	37.92	2.41
	1125	10.89	1.85	10.02	13.97	12.83	1.91	17.52	15.98	1.97	20.94	18.60	2.03	24.87	22.64	2.12	29.28	29.28	2.22	33.90	33.90	2.31	37.82	37.82	2.39
70	875	10.06	1.90	9.26	13.08	12.02	1.97	16.80	15.32	2.06	20.12	17.87	2.14	23.88	21.73	2.24	28.09	28.09	2.35	32.89	32.89	2.49	37.51	37.51	2.60
	1050	10.32	1.92	9.50	13.38	12.29	1.98	17.10	15.59	2.05	20.45	18.17	2.12	24.30	22.11	2.21	28.60	28.60	2.31	33.43	33.43	2.43	37.54	37.54	2.52
	1125	10.42	1.93	9.59	13.49	12.40	1.99	17.21	15.69	2.06	20.58	18.28	2.12	24.45	22.25	2.21	28.79	28.79	2.31	33.54	33.54	2.41	0.00	0.00	0.00
75	875	9.59	1.98	8.82	12.62	11.60	2.05	16.06	14.65	2.13	19.77	17.56	2.23	23.47	21.36	2.33	27.62	27.62	2.45	32.35	32.35	2.59	37.03	37.03	2.71
	1050	9.84	2.00	9.05	12.92	11.87	2.06	16.74	15.27	2.14	20.10	17.85	2.22	23.88	21.73	2.30	28.11	28.11	2.41	32.94	32.94	2.53	37.13	37.13	2.63
	1125	9.94	2.01	9.14	13.03	11.97	2.07	16.86	15.37	2.14	20.22	17.96	2.21	24.03	21.87	2.30	28.30	28.30	2.40	33.10	33.10	2.51	37.10	37.10	2.60
N4H436GKP, N4H436L,KA Outdoor Section With FEM4X36**BL Indoor Section																									
65	1050	12.89	2.19	11.67	16.96	15.58	2.31	21.07	19.21	2.39	25.72	22.84	2.49	29.58	26.91	2.56	33.94	33.94	2.65	38.88	38.88	2.79	45.00	45.00	3.00
	1200	12.94	2.22	11.90	17.30	15.89	2.32	21.41	19.52	2.40	26.04	23.12	2.49	29.94	27.25	2.54	34.56	34.56	2.63	39.50	39.50	2.75	45.85	45.85	2.95
	1350	13.19	2.25	12.14	17.58	16.15	2.35	21.72	19.81	2.41	26.33	23.39	2.49	30.26	27.54	2.54	34.73	34.73	2.61	40.03	40.03	2.73	46.52	46.52	2.92
70	1050	11.93	2.28	10.97	16.33	15.00	2.40	20.46	18.65	2.49	25.27	22.44	2.60	29.12	26.50	2.67	33.35	33.35	2.77	38.21	38.21	2.90	44.19	44.19	3.11
	1200	12.23	2.31	11.25	16.63	15.29	2.42	20.80	18.96	2.50	25.61	22.75	2.59	29.49	26.84	2.65	33.80	33.80	2.74	38.82	38.82	2.86	44.99	44.99	3.06
	1350	12.48	2.34	11.48	16.91	15.54	2.44	21.11	19.24	2.51	25.90	23.00	2.60	29.81	27.13	2.65	34.19	34.19	2.72	39.32	39.32	2.84	45.65	45.65	3.03
70	1050	11.21	2.37	10.32	15.66	14.39	2.49	19.83	18.08	2.59	24.11	21.42	2.68	28.71	26.12	2.79	32.84	32.84	2.88	37.57	37.57	3.02	43.38	43.38	3.23
	1200	11.47	2.40	10.55	15.96	14.67	2.51	20.18	18.40	2.60	24.84	21.88	2.68	29.04	26.43	2.77	33.28	33.28	2.85	38.15	38.15	2.98	44.15	44.15	3.17
	1350	11.71	2.43	10.77	16.23	14.92	2.54	20.48	18.68	2.61	25.43	22.59	2.71	29.35	26.71	2.76	33.65	33.65	2.84	38.63	38.63	2.95	44.79	44.79	3.14

HEAT PUMP HEATING PERFORMANCE (CONTINUED)

INDOOR AIR		OUTDOOR COIL ENTERING AIR TEMPERATURES ° F (° C)																							
EDB ° F (° C)	CFM	-3 (-19.4)			7 (-13.9)			17 (-8.3)			27 (-2.8)			37 (2.8)			47 (8.3)			57 (13.9)			67 (19.4)		
		Capacity MBtuh	Total Sys-tem kW	Integ	Capacity MBtuh	Total Sys-tem kW	Integ	Capacity MBtuh	Total Sys-tem kW	Integ	Capacity MBtuh	Total Sys-tem kW	Integ	Capacity MBtuh	Total Sys-tem kW	Integ	Capacity MBtuh	Total Sys-tem kW	Integ	Capacity MBtuh	Total Sys-tem kW	Integ	Capacity MBtuh	Total Sys-tem kW	Integ
65	1050	13.11	12.06	2.21	17.18	15.79	2.30	21.15	19.29	2.37	25.69	22.82	2.46	29.27	26.63	2.51	33.08	33.08	2.57	37.32	37.32	2.68	42.38	42.38	2.84
	1200	13.41	12.34	2.24	17.53	16.11	2.32	21.55	19.85	2.38	26.06	23.15	2.45	29.69	27.02	2.49	33.56	33.56	2.55	37.91	37.91	2.64	43.09	43.09	2.79
	1350	13.67	12.58	2.27	17.84	16.39	2.35	21.89	19.95	2.40	26.39	23.44	2.46	30.04	27.33	2.48	33.96	33.96	2.53	38.40	38.40	2.62	43.67	43.67	2.76
	1050	12.29	11.30	2.29	16.40	15.07	2.39	20.41	18.61	2.47	24.66	21.90	2.54	28.75	26.16	2.62	32.54	32.54	2.69	36.71	36.71	2.72	41.68	41.68	2.95
	1200	12.58	11.57	2.32	16.74	15.39	2.41	20.80	18.96	2.48	25.00	22.65	2.56	29.15	26.52	2.60	33.00	33.00	2.66	37.27	37.27	2.75	42.36	42.36	2.90
70	1050	12.84	11.82	2.35	17.04	15.66	2.44	21.14	19.28	2.49	25.84	22.95	2.56	29.50	26.84	2.59	33.40	33.40	2.64	37.74	37.74	2.73	42.93	42.93	2.87
	1200	13.11	12.04	2.38	17.39	15.99	2.46	21.51	19.62	2.52	26.21	23.29	2.59	30.00	27.33	2.62	33.80	33.80	2.68	38.16	38.16	2.76	43.50	43.50	2.90
	1350	13.38	12.31	2.41	17.66	16.24	2.49	21.88	19.95	2.55	26.58	23.64	2.62	30.40	27.71	2.65	34.20	34.20	2.71	38.48	38.48	2.79	44.08	44.08	2.93
	1050	11.69	10.75	2.41	15.90	14.61	2.51	20.02	18.25	2.58	24.19	21.48	2.64	28.24	25.63	2.71	32.46	32.46	2.77	36.65	36.65	2.87	41.64	41.64	3.02
	1200	11.99	10.99	2.44	16.22	14.90	2.53	20.36	18.56	2.59	24.84	21.89	2.65	28.98	26.37	2.71	32.84	32.84	2.76	37.10	37.10	2.84	42.21	42.21	2.98
65	1225	16.83	15.48	2.68	21.19	19.47	2.76	26.01	23.72	2.85	31.22	27.73	2.96	36.23	32.97	3.06	41.58	41.58	3.18	47.26	47.26	3.29	51.99	51.99	3.36
	1400	17.17	15.80	2.70	21.57	19.82	2.77	26.98	24.60	2.86	31.57	28.03	2.94	36.63	33.33	3.03	42.10	42.10	3.14	47.44	47.44	3.20	51.82	51.82	3.26
	1575	17.47	16.07	2.72	21.88	20.11	2.77	27.28	24.88	2.86	31.89	28.33	2.93	36.97	33.64	3.01	42.45	42.45	3.10	47.42	47.42	3.15	51.55	51.55	3.20
	1225	15.95	14.68	2.79	20.41	18.76	2.86	25.20	22.98	2.95	30.75	27.31	3.08	35.75	32.53	3.19	41.00	41.00	3.32	46.67	46.67	3.43	51.41	51.41	3.51
	1400	16.27	14.97	2.80	20.76	19.08	2.87	25.60	23.34	2.95	31.08	27.61	3.06	36.11	32.86	3.15	41.49	41.49	3.27	46.95	46.95	3.35	51.31	51.31	3.40
70	1575	16.54	15.22	2.82	21.07	19.36	2.88	25.96	23.67	2.95	31.38	27.87	3.05	36.45	33.17	3.14	41.91	41.91	3.24	47.00	47.00	3.29	51.07	51.07	3.34
	1225	15.11	13.90	2.89	19.67	18.08	2.98	24.49	22.33	3.07	30.28	26.90	3.21	35.25	32.07	3.33	40.41	40.41	3.47	46.09	46.09	3.58	50.81	50.81	3.67
	1400	15.40	14.17	2.91	20.00	18.37	2.98	24.87	22.63	3.06	30.62	27.20	3.19	35.63	32.42	3.29	40.89	40.89	3.41	46.39	46.39	3.50	50.77	50.77	3.56
	1575	15.85	14.40	2.93	20.28	18.64	2.99	25.19	22.97	3.07	30.90	27.44	3.17	35.95	32.71	3.27	41.30	41.30	3.38	46.51	46.51	3.44	50.58	50.58	3.49
	1400	18.06	16.61	2.84	23.23	21.35	2.95	28.62	26.10	3.07	35.13	31.20	3.23	40.37	36.74	3.36	46.19	46.19	3.52	52.96	52.96	3.69	60.25	60.25	3.85
65	1600	18.43	16.96	2.87	23.65	21.73	2.97	29.08	26.52	3.08	35.52	31.54	3.22	40.85	37.18	3.34	46.77	46.77	3.48	53.78	53.78	3.63	60.78	60.78	3.78
	1800	18.77	17.27	2.90	24.02	22.07	3.00	29.49	26.89	3.09	35.88	31.87	3.23	41.25	37.54	3.34	47.27	47.27	3.46	54.35	54.35	3.60	61.14	61.14	3.73
	1400	17.10	15.73	2.94	22.37	20.56	3.06	27.80	25.35	3.18	34.45	30.60	3.35	38.83	36.24	3.50	45.50	45.50	3.66	52.11	52.11	3.85	59.42	59.42	4.01
	1600	17.45	16.06	2.97	22.77	20.92	3.08	28.25	25.76	3.19	34.96	31.05	3.35	40.26	36.64	3.48	46.07	46.07	3.62	52.88	52.88	3.78	59.97	59.97	3.93
	1800	17.72	16.30	3.00	23.10	21.23	3.10	28.64	26.12	3.21	35.34	31.39	3.35	40.64	36.99	3.47	46.55	46.55	3.60	53.57	53.57	3.75	60.35	60.35	3.88
85	1400	14.48	13.33	3.29	19.88	18.27	3.43	25.43	23.18	3.58	31.19	27.70	3.74	38.27	34.83	3.99	43.48	43.48	4.17	49.52	49.52	4.35	56.66	56.66	4.53
	1600	14.77	13.59	3.32	20.23	18.59	3.45	25.83	23.55	3.59	31.68	28.14	3.73	38.67	35.19	3.95	44.00	44.00	4.11	50.28	50.28	4.28	57.31	57.31	4.44
	1800	15.00	13.80	3.35	20.49	18.83	3.47	26.15	23.84	3.60	32.05	28.47	3.74	39.01	35.50	3.93	44.45	44.45	4.08	50.96	50.96	4.23	57.77	57.77	4.38
	1750	21.79	20.04	3.35	27.51	25.28	3.48	33.77	30.79	3.62	41.16	36.55	3.80	47.80	43.50	3.96	55.22	55.22	4.13	63.89	63.89	4.31	72.41	72.41	4.49
	2000	22.17	20.40	3.38	27.93	25.67	3.49	34.27	31.24	3.62	41.55	36.90	3.78	48.32	43.97	3.93	55.88	55.88	4.08	64.55	64.55	4.23	72.64	72.64	4.39
65	2250	22.52	20.71	3.42	28.30	26.01	3.52	34.70	31.64	3.64	41.91	37.22	3.79	48.78	44.39	3.92	56.46	56.46	4.07	64.91	64.91	4.19	72.49	72.49	4.33
	1750	21.01	19.33	3.50	26.77	24.60	3.63	33.00	30.09	3.78	40.68	36.13	3.88	47.23	42.98	4.14	54.50	54.50	4.32	63.05	63.05	4.51	71.52	71.52	4.70
	2000	21.38	19.67	3.53	27.19	24.99	3.65	33.48	30.53	3.78	41.09	36.49	3.96	47.73	43.44	4.11	55.15	55.15	4.27	63.75	63.75	4.42	71.80	71.80	4.59
	2250	21.79	19.99	3.57	27.57	25.33	3.68	33.91	30.92	3.80	41.45	36.82	3.97	48.17	43.84	4.10	55.71	55.71	4.25	64.15	64.15	4.37	71.74	71.74	4.52
	1750	20.18	18.57	3.66	25.98	23.88	3.80	32.21	29.37	3.95	40.16	35.67	4.17	46.66	42.46	4.34	53.80	53.80	4.52	62.20	62.20	4.72	70.62	70.62	4.91
75	2000	20.56	18.91	3.69	26.42	24.28	3.82	32.69	29.81	3.95	40.62	36.07	4.15	47.14	42.89	4.30	54.42	54.42	4.46	62.94	62.94	4.62	70.93	70.93	4.80
	2250	20.90	19.23	3.73	26.79	24.62	3.85	33.11	30.19	3.97	40.99	36.40	4.15	47.57	43.29	4.29	54.97	54.97	4.44	63.39	63.39	4.57	70.94	70.94	4.72

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

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

EDB — Entering Dry Bulb

Accessory Description and Usage (Listed Alphabetically)

1. Ball-Bearing Fan Motor

A fan motor with ball bearings which permits speed reduction while maintaining bearing lubrication.

2. Compressor Start Assist - Capacitor and Relay

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

Usage Guideline:

Required for reciprocating compressors in the following applications:

Long line

Low ambient cooling

Hard shut off expansion valve on indoor coil

Liquid line solenoid on indoor coil

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

Long line

Low ambient cooling

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

3. Compressor Start Assist — PTC Type

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

Usage Guideline:

Suggested in installations for single-phase units with marginal power supply.

4. Crankcase Heater

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

Usage Guideline:

Required in low ambient cooling applications.

Required in long line applications.

Suggested in all commercial applications.

5. Evaporator Freeze Thermostat

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

Usage Guideline:

Required when low ambient kit has been added.

6. Isolation Relay

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

Usage Guideline:

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

7. Liquid-Line Solenoid Valve (LLS)

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

Usage Guideline:

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

8. Low-Ambient Pressure Switch Kit

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits. The control will maintain working head pressure at low-ambient temperatures down to 0°F (-17.8°C) when properly installed.

Usage Guideline:

A Low-Ambient Pressure Switch

Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

9. Sound Jacket

Wraparound sound reducing cover for the compressor. Reduces the sound level by about 2 dBA.

Usage Guideline:

Suggested when unit is installed closer than 15 ft. (4.577 m) to quiet areas, bedrooms, etc.

Suggested when unit is installed between two houses less than 10 ft. (3.05 m) apart.

10. Thermostatic Expansion Valve (TXV) Bi-Flow

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:

Accessory required to meet AHRI rating and system reliability, where indoor not equipped.

Required in all heat pump applications designed with R-410A refrigerant.

11. Time-Delay Relay

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

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

Usage Guideline:

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

ACCESSORY USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOW-AMBIENT COOLING APPLICATIONS (Below 55°F / 12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS*	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles/3.22 km)
Accumulator	Standard	Standard	Standard
Compressor Start Assist Capacitor and Relay	Yes**	Yes**	No**
Crankcase Heater	Yes ♦	Yes ♦	No ♦
Evaporator Freeze Thermostat	Yes	No	No
Hard Shutoff TXV	Yes	Yes	No
Isolation Relay	Yes	No	No
Liquid Line Solenoid Valve	No	See Long - Line Application Guideline	No
Low Ambient Switch	Yes	No	No
Support Feet	Recommended	No	Recommended

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 20 ft. (6.09 m) vertical differential, refer to Residential Split- System Longline Application Guideline.

** Not required for Three- Phase units

♦ Standard for Three- Phase units only

ACCESSORIES

Part Number	Description	Used On Model Size
NASA001SC	Start Component - PTC Device	ALL*
NASA00201FS	Evaporator Freeze Thermostat	ALL
NASA001LS	Liquid Line Solenoid Valve	ALL
NASA001TD	Time Delay Relay, Indoor Blower	ALL
NASA001AC	Anti- Cycle Timer (5 minute delay)	ALL
NASA401LA	Low Ambient Kit (Pressure Switch)	ALL
NASA405PS	High Pressure Switch Kit	ALL
NASA00101IK	Low Ambient Isolation Relay Kit	ALL
NASA00201SF	Support Feet, 4" (102mm)	ALL
NASA012SC	Hard Start Kit (Capacitor & Relay)	18, 24, 30, 36*, 60*
NASA014SC	Hard Start Kit (Capacitor & Relay)	42, 48*
NASA00601CH	Crankcase Heater for Compressor	18, 24, 30, 36*
NASA00501CH	Crankcase Heater for Compressor	42, 48*, 60*
NASA00201SJ	Sound Jacket, Compressor	18, 24, 30, 36
NASA00101SJ	Sound Jacket, Compressor	42, 48, 60
NASA00106SS	Snow Stand Kit	ALL
NAEA40501TX	TXV Kit, R- 410A - use on copper and tin fan coils	18, 24, 30
NAEA40601TX	TXV Kit, R- 410A - use on copper and tin fan coils	36, 42
NAEA40701TX	TXV Kit, R- 410A - use on copper and tin fan coils	48, 60
NAEB40501TX	TXV Kit, R- 410A - use on aluminum fan coils	18, 24, 30
NAEB40601TX	TXV Kit, R- 410A - use on aluminum fan coils	36, 42
NAEB40701TX	TXV Kit, R- 410A - use on aluminum fan coils	48, 60

* Single- Phase units