



C4A3

Product Specifications

**EFFICIENT 13 SEER AIR CONDITIONER
ENVIRONMENTALLY SOUND R-410A REFRIGERANT**

1- 1/2 THRU 5 TONS SPLIT SYSTEM

208 / 230 Volt, 1-phase, 60 Hz

REFRIGERATION CIRCUIT

- Copeland Scroll™ compressors on all models
- Filter-Drier supplied with every unit for field installation
- External high and low refrigerant service ports
- Copper tube / aluminum fin coil

PERFORMANCE

- 2- speed Fan Motors factory wired on all models
- Compressor Sound Jacket standard

EASY TO INSTALL AND SERVICE

- Comfort Alert™ Diagnostics device on all models
- Easy Access service valves on all models
- Innovative control box design
- High and Low pressure switches
- Fan motor in-line disconnect plug
- Only two screws to access control panel
- Factory charged with R- 410A refrigerant

BUILT TO LAST

- High gloss, 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) spacing for extra protection (hail guard)
- Corner Posts for extra strength and style

LIMITED WARRANTY*

- 1 year No Hassle Replacement™ 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 owner occupied, 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 (tons)	Nominal Btu/hr	Min. Circuit Ampacity	Max. Fuse or Breaker	Operating Dimensions height x width x depth in. (mm)	Ship / Operating Weight lbs. (kg)
C4A318GKF	1- 1/2	18,000	11.8	20	25- 3/16 x 23- 1/8 x 23- 1/8 (640 x 587 x 587)	143 / 117 (65 / 53)
C4A324GKN	2	24,000	17.6	30	25- 5/16 x 23- 1/8 x 23- 1/8 (643 x 587 x 587)	142 / 118 (64 / 54)
C4A330GKN	2- 1/2	30,000	16.8	25	28- 11/16 x 23- 1/8 x 23- 1/8 (729 x 587 x 587)	151 / 127 (69 / 58)
C4A336GKN	3	36,000	21.9	35	25- 5/16 x 31- 3/16 x 31- 3/16 (643 x 793 x 793)	196 / 160 (89 / 73)
C4A342GKN	3- 1/2	42,000	23.5	40	32- 1/8 x 31- 3/16 x 31- 3/16 (816 x 793 x 793)	230 / 195 (104 / 89)
C4A348GKN	4	48,000	26.0	40	35- 1/2 x 31- 3/16 x 31- 3/16 (902 x 793 x 793)	243 / 203 (110 / 92)
C4A360GKN	5	60,000	34.2	50	28- 11/16 x 31- 3/16 x 31- 3/16 (729 x 793 x 793)	250 / 215 (113 / 98)

Specifications subject to change without notice.

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:	C	4	A	3	24	G	K	N	1	0	0
C = Day & Night Mainline											
4 = R- 410A		REFRIGERANT									
A = Air Conditioner			TYPE								
H = Heat Pump			TYPE								
3 = 13 SEER 4 = 14 SEER 5 = 15 SEER 6 = 16 SEER 7 = 17 SEER 8 = 18 SEER											
NOMINAL EFFICIENCY											
18 = 18,000 BTUH = 1- 1/2 tons 24 = 24,000 BTUH = 2 tons 30 = 30,000 BTUH = 2- 1/2 tons 36 = 36,000 BTUH = 3 tons 42 = 42,000 BTUH = 3- 1/2 tons 48 = 48,000 BTUH = 4 tons 60 = 60,000 BTUH = 5 tons											
NOMINAL CAPACITY											
A = Standard Grille G = Coil Guard Grille C = Coastal											
FEATURES											
K = 208/230- 1- 60						VOLTAGE					
Sales Code											
Engineering Revision											
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 2 = R- 22 4 = R- 410A									
REFRIGERANT									
Product Identifier Number									
Package Quantity									
Type of Kit (Example: CH = Crankcase Heater)									

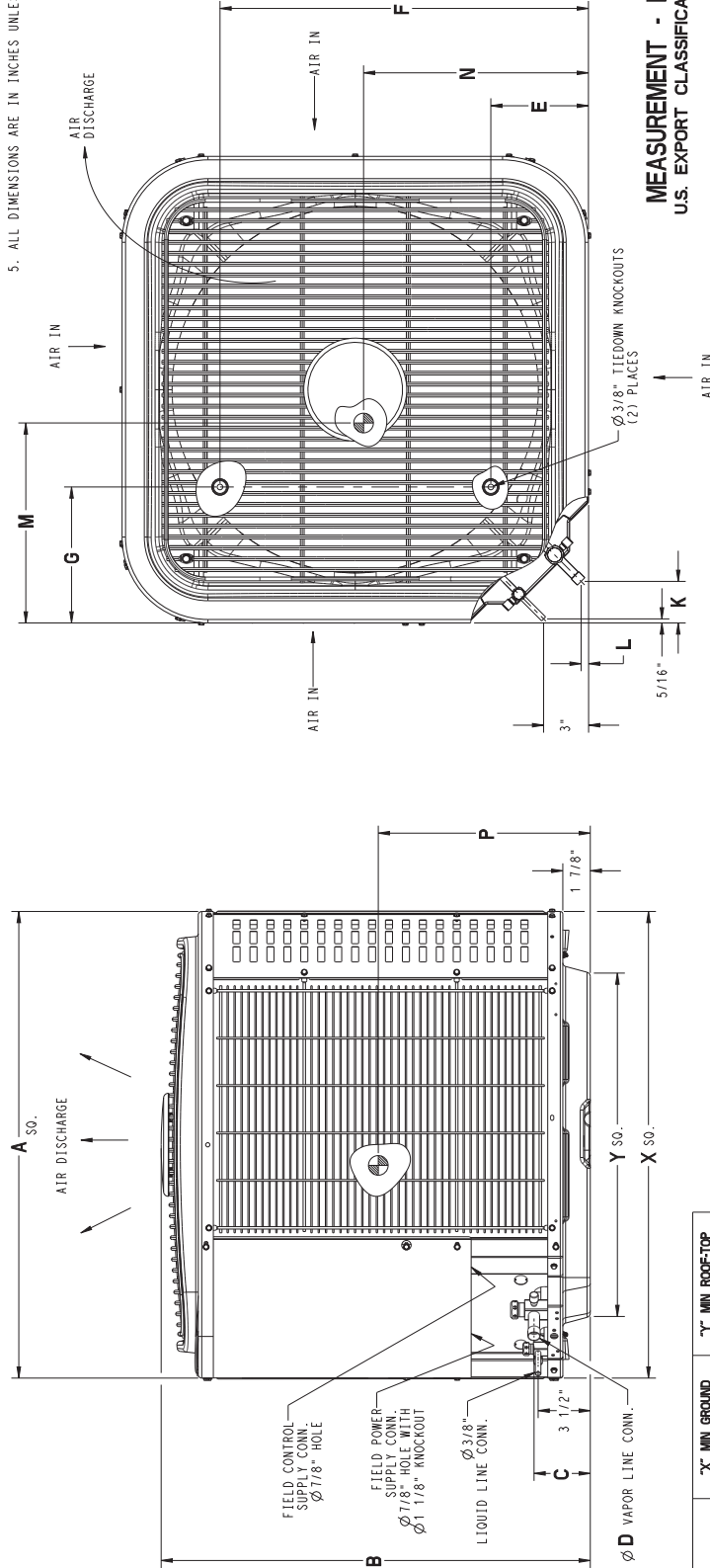
UNIT	SERIES	ELECTRICAL CHARACTERISTICS	A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT(lbs)	SHIPPING WEIGHT(lbs)	SHIPPING DIMENSIONS (L x W x H)
C4A318G+F	1	X 0 0 0	23 1/8"	25 5/16"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	11"	11"	12"	117	143	24 1/4" X 27 3/8" X 32 9/16"
C4A324G+N	2	X 0 0 0	23 1/8"	25 5/16"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	12"	12"	11"	118	142	24 1/4" X 27 3/8" X 32 9/16"
C4A330G+N	3	X 0 0 0	23 1/8"	28 11/16"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	11"	11"	12"	127	151	24 1/4" X 27 3/8" X 35 15/16"
C4A336G+N	2	X 0 0 0	31 3/16"	25 5/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	16"	14"	11"	160	196	32 5/16" X 35 1/2" X 32 9/16"
C4A342G+N	2	X 0 0 0	31 3/16"	32 1/8"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	15"	16"	15"	195	230	32 5/16" X 35 1/2" X 39 3/8"
C4A348G+N	2	X 0 0 0	31 3/16"	35 1/2"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	16"	15"	15"	203	243	32 5/16" X 35 1/2" X 42 3/4"
C4A360G+N	3	X 0 0 0	31 3/16"	28 11/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	9 1/8"	2 15/16"	5/8"	15"	14"	12"	215	250	32 5/16" X 35 1/2" X 35 15/16"

X = YES
O = NO

208-230-160	575	208/230-3-60	460-3-60
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NOTES:

- ALLOW 30" CLEARANCE TO SERVICE SIDE OF UNIT. 48" ABOVE UNIT ON ONE SIDE, 51 1/2" ON REMAINING SIDE, AND 24" BETWEEN UNITS FOR PROPER AIRFLOW.
- MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 55°F., MAX. 125°F.
- SERIES DESIGNATION IS THE 10TH POSITION OF THE UNIT MODEL NUMBER.
- CENTER OF GRAVITY
- ALL DIMENSIONS ARE IN INCHES UNLESS NOTED.



MEASUREMENT - ENGLISH
U.S. EXPORT CLASSIFICATION:EAR99

UNIT SIZE	X" MIN GROUND MOUNTING PAD APPLICATION DIMENSIONS	Y" MIN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
18, 24, 30	23 1/8"	17 3/4"
36, 42, 48, 60	25 3/4"	20 7/16"
	31 3/16"	23"
	35"	26 3/4"


UNIT NUMBER	SD4817-4	SHT	1	REV	1
NET SHEET	?				

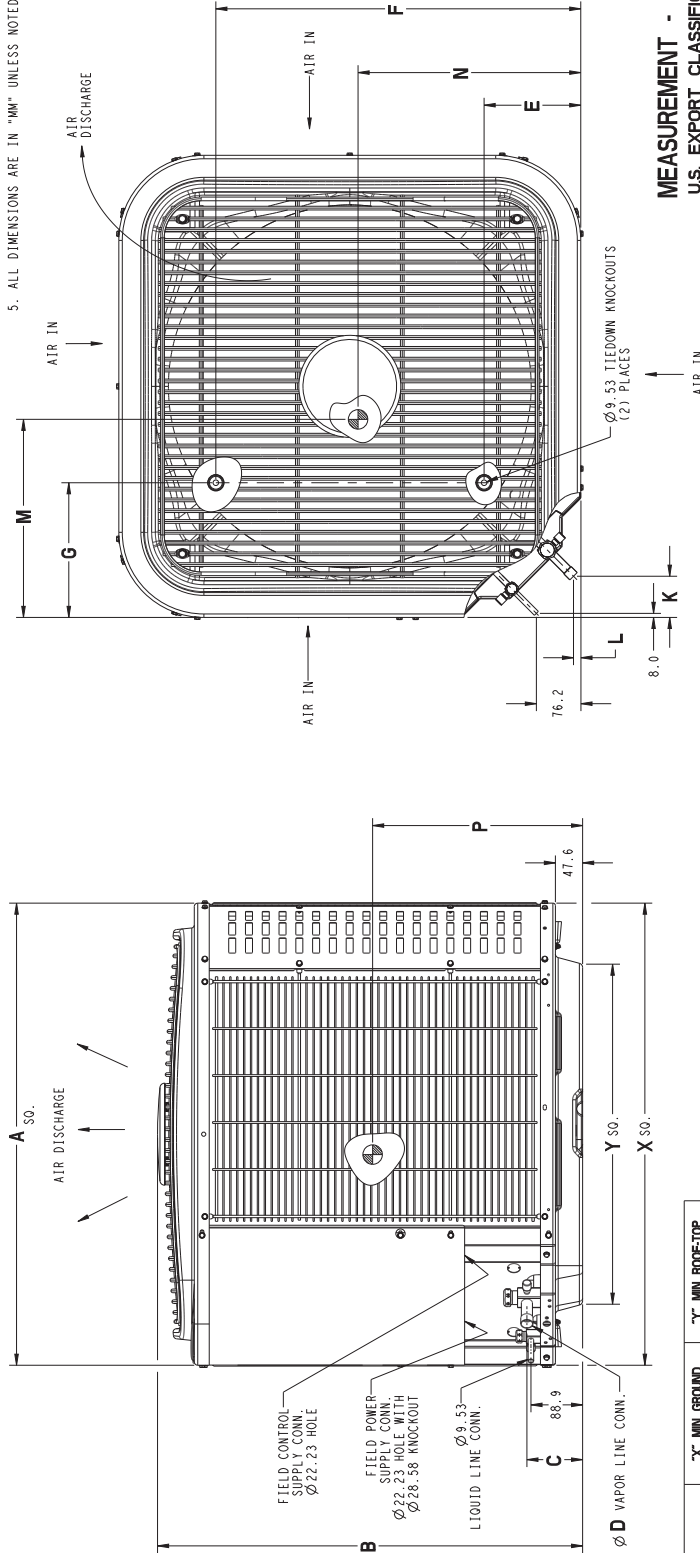
UNIT	SERIES	ELECTRICAL CHARACTERISTICS	A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT(KGS)	SHIPPING WEIGHT(KGS)	SHIPPING DIMENSIONS (L x W x H)
C4A3186F	1	X 0 0 0	587.3	642.9	95.6	19.1	113.0	459.0	197.9	70.9	12.8	279.4	279.4	304.8	53.1	64.9	616.0 X 695.3 X 827.1
C4A3246N	2	X 0 0 0	587.3	642.9	95.6	19.1	113.0	459.0	197.9	70.9	12.8	304.8	304.8	279.4	53.5	64.4	616.0 X 695.3 X 912.8
C4A3306N	3	X 0 0 0	587.3	729.3	95.6	19.1	113.0	459.0	197.9	70.9	12.8	279.4	279.4	304.8	57.6	68.5	616.0 X 695.3 X 912.8
C4A3366N	2	X 0 0 0	792.5	642.9	91.9	22.2	166.1	626.3	231.3	74.5	16.3	406.4	355.6	279.4	72.6	88.9	820.8 X 901.7 X 827.1
C4A3426N	2	X 0 0 0	792.5	815.6	91.9	22.2	166.1	626.3	231.3	74.5	16.3	381.0	406.4	381.0	88.4	104.3	820.8 X 901.7 X 1000.1
C4A3486N	2	X 0 0 0	792.5	902.0	91.9	22.2	166.1	626.3	231.3	74.5	16.3	406.4	381.0	381.0	92.1	110.2	820.8 X 901.7 X 1065.8
C4A3606N	3	X 0 0 0	792.5	729.3	91.9	22.2	166.1	626.3	231.3	74.5	16.3	381.0	355.6	304.8	97.5	113.4	820.8 X 901.7 X 912.8

208-230-160	575	208/230-3-60	460-3-60
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X = YES
O = NO

NOTES:

1. ALLOW 762.0 CLEARANCE TO SERVICE SIDE OF UNIT, 1219.2 ABOVE UNIT, 1522.4 ON ONE SIDE, 304.8 ON REMAINING SIDE, AND 609.6 BETWEEN UNITS FOR PROPER AIRFLOW.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 13°C, MAX. 52°C.
3. SERIES DESIGNATION IS THE 10TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF GRAVITY 
5. ALL DIMENSIONS ARE IN "MM" UNLESS NOTED.



MEASUREMENT - METRIC "SI"
U.S. EXPORT CLASSIFICATION: EAR99

UNIT SIZE	X MIN GROUND MOUNTING PAD APPLICATION DIMENSIONS	Y MIN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
18,24,30	587.3	451.3
-	654.0	518.5
36,42,48,60	792.5	583.2
-	889.0	679.7

PART NUMBER	SDA817-4	SHEET	2	REV	1
NEXT SHEET	NONE				

PHYSICAL DATA							
Model Size	18	24	30	36	42	48	60
Nominal Cooling Capacity (BTU/hr)	18,000	24,000	30,000	36,000	42,000	48,000	60,000
Nominal SEER	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Sound Rating**							
High Speed Fan (dBA)	70	74	73	73	74	73	74
Low Speed Fan (dBA)	68	71	72	72	74	71	72
PSC Fan Motor HP	1/12	1/10	1/10	1/5	1/5	1/4	1/4
Fan RPM High	1094	1092	1087	840	841	828	816
Fan RPM Low	995	990	937	803	799	764	735
Fan CFM (High)	1747	2191	2191	3359	3359	3937	3937
Coil Face Area ft ² (m ²)	8.40 (0.78)	8.40 (0.78)	9.80 (0.91)	12.93 (1.20)	17.25 (1.60)	19.40 (1.80)	15.09 (1.40)
Coil Rows- fins per inch	1- 20	1- 25	1- 25	1- 25	1- 25	1- 25	2- 20
Low Pressure Switch							
Open Pressure (psig)	50 ± 7	50 ± 7	50 ± 7	50 ± 7	50 ± 7 95	50 ± 7	50 ± 7
Close Pressure (psig)	95 ± 7	95 ± 7	95 ± 7	95 ± 7	± 7	95 ± 7	95 ± 7
High Pressure Switch							
Open Pressure (psig)	610 ± 10	610 ± 10	610 ± 10	610 ± 10	610 ± 10	610 ± 10	610 ± 10
Close Pressure (psig)	420 ± 25	420 ± 25	420 ± 25	420 ± 25	420 ± 25	420 ± 25	420 ± 25
Liquid Line Connection Size in. (mm)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)
Vapor Line Connection Size in. (mm)	3/4 (19)	3/4 (19)	3/4 (19)	7/8 (22)	7/8 (22)	7/8 (22)	7/8 (22)
Rated Line Set Liquid Tube Diameter in. (mm)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)
Rated Line Set Vapor Tube Diameter in. (mm)*	3/4 (19)*	3/4 (19)*	3/4 (19)*	7/8 (22)*	7/8 (22)*	7/8 (22)*	1- 1/8 (29)*
Factory Charge R- 410A lbs. (kg)	3.15 (1.43)	3.80 (1.72)	4.10 (1.86)	5.34 (2.42)	5.84 (2.65)	7.00 (3.18)	8.00 (3.63)
Required Subcooling °F (°C)	14 (7.8)	10 (6)	10 (6)	12 (7)	10 (6)	15 (8)	10 (6)

* 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 (208/230- 1- 60, voltage range 197V - 253V)							
Model Size	18	24	30	36	42	48	60
Minimum Circuit Ampacity - MCA (amps)	11.8	17.6	16.8	21.9	23.5	26.0	34.2
Maximum OverCurrent Protective device - MOCP (amps)	20	30	25	35	40	40	50
Compressor RLA (Rated Load Amps)	9.0	13.5	12.8	16.7	17.9	19.9	26.4
LRA (Locked Rotor Amps)	47.5	58.3	64	79	112	109	134
Fan Motor FLA (Full Load Amps)	0.5	0.75	0.75	1.1	1.1	1.2	1.2

**Sound Rating tested in accordance with AHRI Standard 270- 2008 (not listed with AHRI).

REFRIGERANT CHARGE ADJUSTMENTS

Liquid Line Size	R- 410A Charge oz/ft
3/8	0.60 (Factory charge for lineset = 9 oz)
5/16	0.40
1/4	0.27

Units are factory charged for 15 ft (4.6 m) of 3/8" liquid line. The factory charge for 3/8" lineset 9 oz. When using other length or diameter liquid lines, charge adjustments are required per the chart above.

Charging Formula:

[(Lineset oz/ft x total length) – (factory charge for lineset)] = charge adjustment

Example 1: System has 15 ft of line set using existing 1/4" liquid line. What charge adjustment is required?

Formula: (.27 oz/ft x 15ft) – (9 oz) = (-4.95) oz.

Net result is to remove 4.95 oz of refrigerant from the system

Example 2: System has 45 ft of existing 5/16" liquid line. What is the charge adjustment?

Formula: (.40 oz/ft. x 45ft) – (9 oz.) = 9 oz.

Net result is to add 9 oz of refrigerant to the system

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. See Accessory Usage Guideline table for required accessories. 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 Air Conditioner systems, the charts below shows when an application requires a TXV and long line accessories due to lineset length.

AC with R-410A Refrigerant Long Line Description ft (m) Beyond these lengths, a TXV is required

Total Length	Outdoor Unit Above or Below Indoor Unit
TXV required beyond 50 ft. (15.2 m)	TXV required beyond 20 ft. (6.1 m)

AC 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
1/4 + TXV	No accessories needed within allowed lengths	No accessories needed within allowed lengths	175 (53.3)
5/16 + TXV	120 (36.6)	50 (15.2) vertical or 120 (36.6) total	120 (36.6)
3/8 + TXV	80 (24.4)	35 (10.7) vertical or 80 (24.4) total	80 (24.4)

Note: See Long Line Guideline for details

R-410A COOLING CAPACITY LOSS FOR VARIOUS LINE LENGTHS & TUBE DIAMETERS															
Model Size	Liquid Line in. (mm)	Acceptable Vapor Line Sizes in. (mm)	Cooling Capacity Loss (%) at Total Equivalent Line Length, feet (m) Refer to Long Line Application Guideline to calculate equivalent length												
			Standard Application			Long Line Application (Requires Accessories)									
			25' (7.6)	50' (15.2)	80' (24.4)	81' (24.7)	100' (30.5)	125' (38.1)	150' (45.7)	175' (53.3)	200' (61)	225' (68.6)	250' (76.2)		
18	3/8 (10)	1/2 (13)	1	2	3	3	4	6	7	8	9	10	12		
		5/8 (16)	0	0	1	1	1	1	2	2	3	3	3		
		3/4 (19)	0	0	0	0	0	1	1	1	1	1	1	1	
24		5/8 (16)	0	1	1	1	2	3	3	4	4	5	6		
		3/4 (19)	0	0	0	0	0	1	1	1	1	1	2		
		7/8 (22)	0	0	0	0	0	0	0	0	0	0	1		
30		5/8 (16)	1	2	3	3	3	4	5	6	7	8	9		
		3/4 (19)	0	0	1	1	1	1	2	2	2	3	3		
		7/8 (22)	0	0	0	0	0	1	1	1	1	1	1		
36		5/8 (16)	1	2	4	4	5	6	7	9	10	11	13		
		3/4 (19)	0	0	1	1	1	2	2	3	3	4	4		
		7/8 (22)	0	0	0	0	0	1	1	1	1	2	2		
42	3/4 (19)	0	1	2	2	2	3	4	4	5	6	6			
	7/8 (22)	0	0	1	1	1	1	2	2	2	3	3			
	1- 1/8 (29)	0	0	0	0	0	0	0	0	0	0	1			
48	3/4 (19)	0	1	2	2	3	4	5	5	6	7	8			
	7/8 (22)	0	0	1	1	1	2	2	2	3	3	4			
	1- 1/8 (29)	0	0	0	0	0	0	0	0	1	1	1			
60	3/4 (19)	1	2	4	4	5	6	7	9	10	11	12			
	7/8 (22)	0	1	2	2	2	3	4	4	5	5	6			
	1- 1/8 (29)	0	0	0	0	1	1	1	1	1	1	2			

Consult the Long Line Application Guideline document before purchasing/installing line sets.

Applications in shaded area may have height restrictions that limit allowable total equivalent length when outdoor unit is below indoor unit.

COOLING PERFORMANCE FOR COMBINATION RATINGS Indoor Models								
For complete ratings information, use the AHRI website directory search: www.AHRIdirectory.org . New ratings may be listed online before Specification Sheets are updated.								
Unit Size	Indoor Model	Furnace Model	AHRI Standard Ratings					
			Cooling 95° F (35° C)					
			Capacity	Factory Enhance	SEER			EER
Standard	W/ Field TDR	W/ Field TXV						
C4A318GKF	EN*4X24L**		17800	TXV		13		11
C4A324GKN	EA*4X24L14A*		23000	TXV		13		11
C4A330GKN	EA*4X30L14A*		28000	TXV		13		11
C4A336GKN	EA*4X36L17A*		34000	TXV		13		11
C4A342GKN	EA*4X42L21A*		41000	TXV		13		11
C4A348GKN	EA*4X48L21A*		46000	TXV		13		11
C4A360GKN	EA*4X60L24A*		57500	TXV		13		11

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 Day and Night database:
<http://www.icpeqp.com/AHRIratings/ratings.aspx?Brand=DayAndNight>

Or scan this QR code:



ACCESSORY USAGE GUIDELINES		
Accessory	REQUIRED FOR LOW- AMBIENT APPLICATIONS {Below 55°F (13°C)}	REQUIRED FOR LONG- LINE APPLICATIONS*
Crankcase Heater	Yes	Yes
Evaporator Freeze Thermostat	Yes	No
Winter Start Control	Yes**	No
TXV	Yes	Yes‡
Hard Start Kit (Capacitor & Relay)	Yes	Yes
Low Ambient Kit (Pressure Switch)	Yes	No
Support Feet, 4" (102mm) tall	Recommended	No
Liquid Line Solenoid Valve	No	See Long- Line Application Guideline

* Refer to the Long Line Application Guideline document.

** Can only be installed in conjunction with the Low Pressure Switch

‡ TXV required beyond 20 ft (6.1m) vertical separation or 50 ft (15.2) total length.

ACCESSORIES		
Part Number	Description	Used On Model Size
NASA001CH	Crankcase Heater for Scroll Compressor (208/230 V)	42, 48, 60
NASA003CH	Crankcase Heater for Scroll Compressor (208/230 V)	18, 24, 30, 36
NASA001SC	Start Component - PTC Device	ALL
NASA00201FS	Evaporator Freeze Thermostat	ALL
NASA401LS	Liquid Line Solenoid Valve, R- 410A	ALL
NASA001TD	Time Delay Relay, Indoor Blower	ALL
NASA00201WS	Winter Start Control	ALL
NASA001AC	Anti- Cycle Timer (5 minute delay)	ALL
NASA005SC	Hard Start Kit (Capacitor & Relay)	ALL
NASA401LA	Low Ambient Kit (Pressure Switch), R- 410A	ALL
NASA00201SF	Support Feet, 4" (102mm) tall (5 blocks)	18, 24, 36
NASA001SF	Support Feet, 4" (102mm) tall (4 blocks)	30, 42, 48, 60
NAEA40501TX	TXV Kit, R- 410A - for use with copper or tin fan coils	18, 24, 30
NAEA40601TX	TXV Kit, R- 410A - for use with copper or tin fan coils	36, 42
NAEA40701TX	TXV Kit, R- 410A - for use with copper or tin fan coils	48, 60
NAEB40501TX	TXV Kit, R- 410A - for use with aluminum fan coils	18, 24, 30
NAEB40601TX	TXV Kit, R- 410A - for use with aluminum fan coils	36, 42
NAEB40701TX	TXV Kit, R- 410A - for use with aluminum fan coils	48, 60