

## HIGH EFFICIENCY 19 SEER TWO-STAGE AIR CONDITIONER WITH OBSERVER™ COMMUNICATING CONTROL SYSTEM

### 2 THRU 5 TONS SPLIT SYSTEM

208 – 230 Volt, 1–phase, 60 Hz

#### REFRIGERATION CIRCUIT

- Copeland Scroll® Ultratech™ 2.0 compressors on all models
- Filter–drier supplied with every unit for field installation
- External high and low refrigerant service ports
- High and low pressure switches
- Copper tube / aluminum fin coil

#### PERFORMANCE

- Self–configuring installation capabilities with Observer Communicating Wall Control
- Outdoor temperature sensor factory installed
- Ball bearing ECM fan motors on all models
- High performance compressor sound shield standard
- Isolation compressor grommets

#### EASY TO INSTALL AND SERVICE

- Text based diagnostics with Observer Communicating Wall Control
- Only 2 control wires required from communicating indoor unit to condenser
- Easy access service valves on all models
- Innovative control box design
- 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
- Corner posts for extra strength and style

#### WARRANTY\*

- 10 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)

\* Applies to original purchaser/homeowner, some limitations may apply. See Warranty certificate for complete details.



TSTAT0101SC  
(Sold Separately)



This product has been designed and manufactured to meet ENERGY STAR criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow the manufacturer's refrigerant charging and air flow instructions. Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.



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

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)
HCA924GKA1	2	24,000	14.3	20	46–7/8 x 35 x 35 (1191 x 889 x 889)	368 / 323 (167 / 147)
HCA924GKA2			15.7	25	40–1/8 x 35 x 35 (1019 x 889 x 889)	295 / 253 (134 / 115)
HCA936GKA1	3	36,000	22.6	35	46–7/8 x 35 x 35 (1191 x 889 x 889)	328 / 283 (149 / 128)
HCA936GKA2			21.1	30		
HCA948GKA1	4	48,000	28.4	40	46–7/8 x 35 x 35 (1191 x 889 x 889)	352 / 306 (160 / 139)
HCA948GKA2			29.2	40		
HCA960GKA1	5	60,000	30.7	50	46–7/8 x 35 x 35 (1191 x 889 x 889)	352 / 307 (160 / 139)
HCA960GKA2			38.7	60		

<b>OUTDOOR UNIT MODEL NUMBER IDENTIFICATION GUIDE (single phase)</b>											
Digit Position:	1	2	3	4	5, 6	7	8	9	10	11	12
Example Part Number:	<b>H</b>	<b>C</b>	<b>A</b>	<b>9</b>	<b>24</b>	<b>G</b>	<b>K</b>	<b>A</b>	<b>2</b>	<b>0</b>	<b>0</b>
H = Heil Mainline											
C = Communicating <b>KEY CHARACTERISTIC</b>											
A = Air Conditioner H = Heat Pump <b>TYPE</b>											
6 = 16 SEER 7 = 17 SEER 8 = 18 SEER 9 = 19 SEER <b>NOMINAL EFFICIENCY</b>											
24 = 24,000 BTUH = 2 tons 36 = 36,000 BTUH = 3 tons 48 = 48,000 BTUH = 4 tons 60 = 60,000 BTUH = 5 tons <b>NOMINAL CAPACITY</b>											
G = Coil Guard Grille <b>FEATURES</b>											
K = 208-230-1-60 <b>VOLTAGE</b>											
Sales Code											
Engineering Revision											
Extra Digit											
Extra Digit											

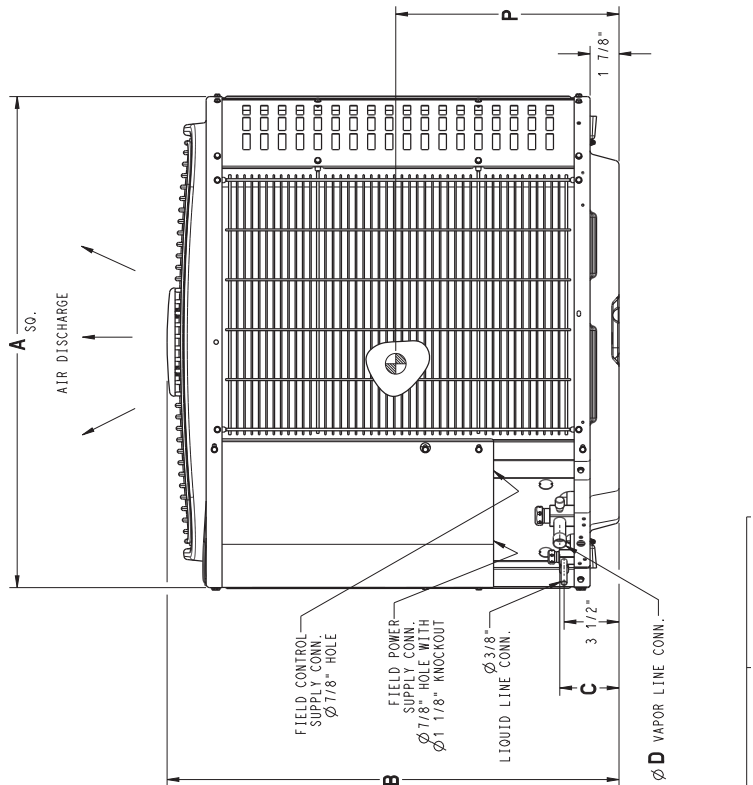
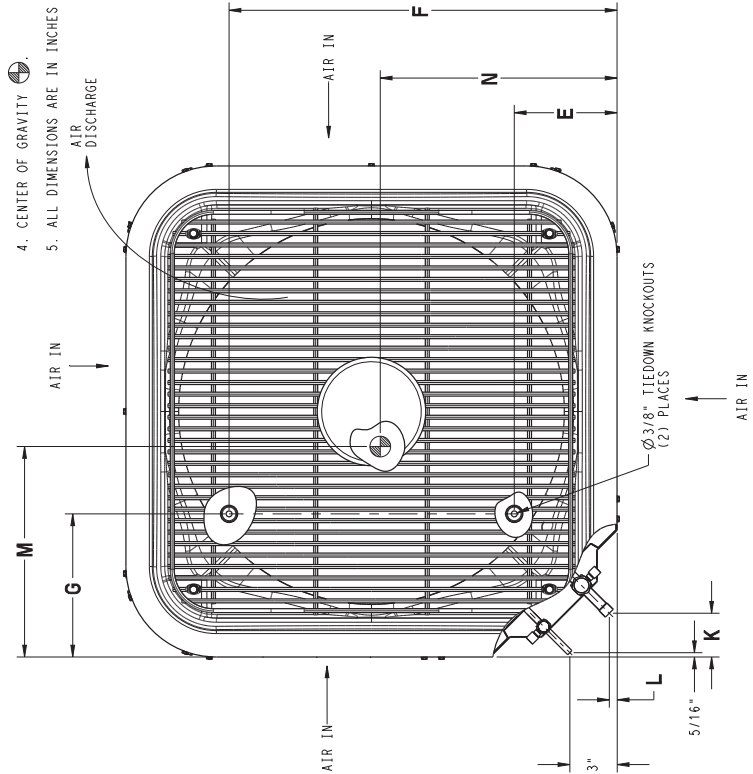
<b>ACCESSORIES PART NUMBER IDENTIFICATION GUIDE</b>									
Digit Position:	1	2	3	4	5	6, 7	8, 9	10, 11	
Example Part Number:	<b>N</b>	<b>A</b>	<b>S</b>	<b>A</b>	<b>0</b>	<b>01</b>	<b>01</b>	<b>CH</b>	
N = Non-Branded									
A = Accessory <b>PRODUCT GROUP</b>									
S = Split System (AC & HP) <b>KIT USAGE</b>									
A = Original B = 2nd Generation <b>MAJOR SERIES</b>									
0 = Generic or Not Applicable 2 = R-22 4 = R-410A <b>REFRIGERANT</b>									
Product Identifier Number									
Package Quantity									
Type of Kit (Example: CH = Crankcase Heater)									

UNIT DIMENSIONS (Inches)

MODEL	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)
HCA924GKA1	35	46-7/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	18	17-1/2	21	323	388	36-1/8x39-1/4x51-13/16
HCA936GKA1	35	46-7/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	17-3/4	17-1/4	20-3/4	324	388	36-1/8x39-1/4x51-13/16
HCA948GKA1	35	46-7/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	18-1/4	18	21-1/2	325	370	36-1/8x39-1/4x51-13/16
HCA960GKA1	35	46-7/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	18	16-3/4	21-3/4	350	394	36-1/8x39-1/4x51-13/16
HCA924GKA2	35	40-1/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	18	16	18-1/2	253	295	37-1/8x37-1/8x46-1/8
HCA936GKA2	35	46-7/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	17	16-1/2	22	283	328	37-1/8x37-1/8x51-13/16
HCA948GKA2	35	46-7/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	18	18	18-3/4	306	352	37-1/8x37-1/8x51-13/16
HCA960GKA2	35	46-7/8	3-7/8	7/8	6-9/16	28-7/16	9-1/8	2-15/16	5/8	18-3/4	17	19-1/2	307	352	37-1/8x37-1/8x51-13/16

NOTES:

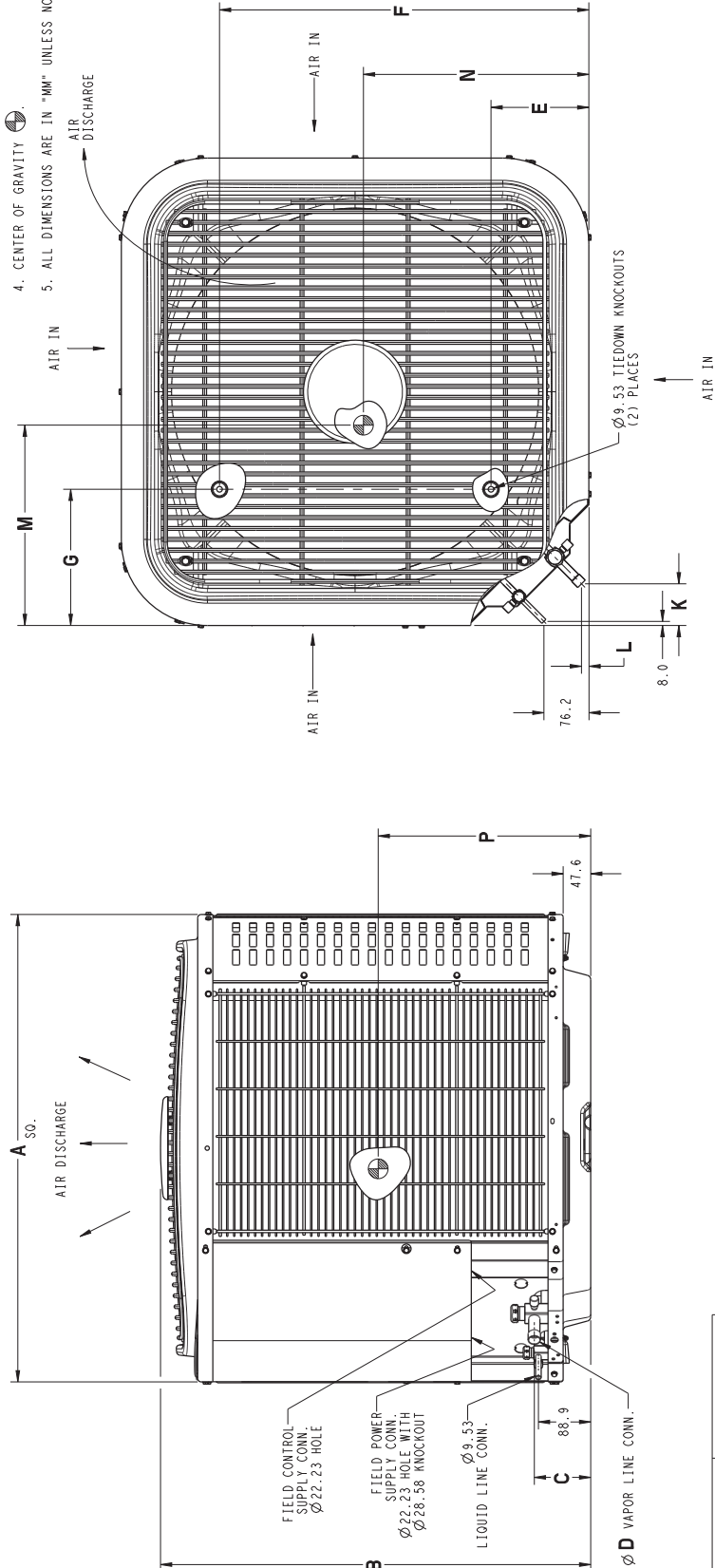
1. ALLOW 30" CLEARANCE TO SERVICE SIDE OF UNIT, 48" ABOVE UNIT, 6" ON ONE SIDE, 12" ON REMAINING SIDE, AND 24" BETWEEN UNITS FOR PROPER AIRFLOW.
2. MINIMUM OUTDOOR OPERATING AMBIENT IN COOLING MODE IS 55°F, MAX. 125°F.
3. SERIES DESIGNATION IS THE 10TH POSITION OF THE UNIT MODEL NUMBER.
4. CENTER OF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



UNIT DIMENSIONS (mm)

MODEL	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)
HCA924GKA1	889	1191	99	22	167	722	232	75	16	457	445	533	147	167	917x997x1315
HCA936GKA1	889	1191	99	22	167	722	232	75	16	451	438	527	148	167	917x997x1315
HCA948GKA1	889	1191	99	22	167	722	232	75	16	464	457	546	148	168	917x997x1315
HCA960GKA1	889	1191	99	22	167	722	232	75	16	457	426	553	159	179	917x997x1315
HCA924GKA2	889	1019	99	22	167	722	232	75	16	457	406	470	115	134	943x943x1172
HCA936GKA2	889	1191	99	22	167	722	232	75	16	432	419	559	129	149	943x943x1316
HCA948GKA2	889	1191	99	22	167	722	232	75	16	457	457	476	139	160	943x943x1316
HCA960GKA2	889	1191	99	22	167	722	232	75	16	476	432	495	139	160	943x943x1316

- NOTES:
1. ALLOW 762.0 CLEARANCE TO SERVICE SIDE OF UNIT, 1219.2 ABOVE THE UNIT, 152.0 ON ONE SIDE, 504.8 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.



PHYSICAL DATA					
Model Size		24	36	48	60
Nominal Cooling Capacity (BTU/hr)		24,000	36,000	48,000	60,000
SEER Rating‡		19.0	19.0	18.0	16.7
Sound Rating**, High Stage (dBA)		72	70	72	70
Low Stage (dBA)		69	66	69	69
ECM Fan Motor HP		1/5	1/5	1/5	1/5
Fan RPM – High Stage		752	689	765	828
Fan RPM – Low Stage		628	582	659	742
Fan CFM – High Stage		3637	3700	4309	4668
Fan CFM – Low Stage		3040	3124	3703	4209
Coil Face Area ft <sup>2</sup> (m <sup>2</sup> )		25.12	30.15	30.15	30.15
Coil Rows – fins per inch		2–20	2–20	2–20	2–20
Low Pressure Switch	Open Pressure	50 ± 7 PSIG	50 ± 7 PSIG	50 ± 7 PSIG	50 ± 7 PSIG
	Close Pressure	95 ± 7 PSIG	95 ± 7 PSIG	95 ± 7 PSIG	95 ± 7 PSIG
Hi Pressure Switch	Open Pressure	670 ± 10 PSIG	670 ± 10 PSIG	670 ± 10 PSIG	670 ± 10 PSIG
	Close Pressure	470 ± 25 PSIG	470 ± 25 PSIG	470 ± 25 PSIG	470 ± 25 PSIG
Liquid Line Connection Size in. (mm)		3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)
Vapor Line Connection Size in. (mm)		7/8 (22)	7/8 (22)	7/8 (22)	7/8 (22)
Recommended Line Set Liquid Tube Diameter in. (mm)		3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)
Recommended Line Set Vapor Tube Diameter in. (mm)*		7/8 (22)*	7/8 (22)*	1–1/8 (29)*	1–1/8 (29)*
* Recommended Vapor Tube Line size is for standard installations. These recommendations may not apply to “Long Line” installations. When the total equivalent line length exceeds 80 feet (24.4m) or there is more than 20 feet (6.1m) vertical separation between indoor and outdoor units, consult the Long Line Application Guideline document before purchasing/ installing line sets.					
Factory Charge R-410A lbs. (kg)		13.34 (6.05)	13.66 (6.20)	13.53 (6.14)	14.33 (6.50)
Required Subcooling °F (°C)		10 (5.6)	11 (6.1)	12 (6.7)	14 (7.8)

ELECTRICAL DATA (208–230–1–60, voltage range 197V – 253V)								
Model Size	24GKA1	24GKA2	36GKA1	36GKA2	48GKA1	48GKA2	60GKA1	60GKA2
Minimum Circuit Ampacity – <b>MCA</b> (amps)	14.3	15.7	22.6	21.1	28.4	29.2	30.7	38.7
Maximum OverCurrent Protective device – <b>MOCP</b> (amps)	20	25	35	30	40	40	50	60
Compressor <b>RLA</b> (Rated Load Amps) – <b>LRA</b> (Locked Rotor Amps)	10.3–52	11.1– 58.3	16.7– 82	15.3– 83	21.2–96	21.2–104	23.0–118	28.8–152.9
Fan Motor <b>FLA</b> (Full Load Amps)	1.4	1.8	1.7	2.0	1.9	2.7	1.9	2.7

‡ Highest sales volume tested combination.

\*\*Sound Rating tested in accordance with AHRI Standard 270–95 (not listed with AHRI).

R-410A COOLING CAPACITY LOSS FOR VARIOUS LINE LENGTHS & TUBE DIAMETERS											
Unit Nominal Size (Btuh)	Maximum Liquid Line Diameter (OD) in.(mm)	Vapor Line Diameters (OD) in. (mm)	Cooling Capacity Loss (%) at Total Equivalent Line Length, feet (m)								
			26-50 (7.9-15.2)	51-80 (15.5-24.4)	81-100 (24.7-30.5)	101-125 (30.8-38.1)	126-150 (38.4-45.7)	151-175 (46.0-50.3)	176-200 (53.6-60.0)	201-225 (61.3-68.6)	226-250 (68.9-76.2)
24 2-Stage AC	3/8 (10)	5/8 (16)	0	1	1	2	3	3	4	4	5
		3/4 (19)	0	0	0	0	1	1	1	1	1
		7/8 (22)	0	0	-	-	-	-	-	-	-
36 2-Stage AC		5/8 (16)	1	2	4	5	6	7	9	10	11
		3/4 (19)	0	0	1	1	2	2	3	3	4
		7/8 (22)	0	0	0	0	1	1	1	1	2
48 2-Stage AC		3/4 (19)	1	2	2	3	4	5	6	7	7
		7/8 (22)	0	1	1	2	2	2	3	3	3
		1-1/8 (29)	0	0	-	-	-	-	-	-	-
60 2-Stage AC		3/4 (19)	1	2	4	5	6	7	9	10	10
		7/8 (22)	0	1	2	2	2	3	4	4	5
		1-1/8 (29)	0	0	0	0	1	1	1	1	1

Applications in shaded area may be long line and may have height restrictions. See the AC & HP R410A Split System Long Line Applications Guideline.

- Applications in this area are not recommended due to insufficient oil return.

### 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](http://www.ahridirectory.org)

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

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

Or scan this QR code:



COOLING PERFORMANCE								
For complete ratings information, use the AHRI website directory search: <a href="http://www.AHRIdirectory.org">www.AHRIdirectory.org</a> . New ratings may be listed online before Specification Sheets are updated.								
Unit Size	Indoor Model (*Tested Model)	Furnace Model	AHRI STANDARD RATINGS					
			COOLING 95°F (35°C)					
			Capacity		SEER	EER	ID CFM	
High	Low	High	Low					
HCA924GKA	*FCM4X48****		26600	23200	19	14.5	800	800
HCA936GKA	*FCM4X60****		36000	31000	19	14	1200	924
HCA948GKA	*FCM4X60****		48000	40000	18	13.5	1400	1120
HCA960GKA	*FCM4X60****		58000	46500	16.7	13.2	1625	1300

\* AHRI = Air Conditioning, Heating & Refrigeration Institute

EERA — Energy Efficiency Ratio - 'A' conditions - 80°F (26.6°C) indoor db/67°F (19.4°C) indoor wb & 95°F (35°C) outdoor wb.

SEER — Seasonal Energy Efficiency Ratio

**NOTES:**

1. Ratings are net values reflecting the effects of circulating fan motor heat. Supplemental electric heat is not included.
2. Tested outdoor/indoor combinations have been tested in accordance with DOE test procedures for central air conditioners. Ratings for other combinations are determined under DOE computer simulation procedures.
3. Determine actual CFM values obtainable for your system by referring to fan performance data in fan coil or furnace coil literature.
4. Do not apply with capillary tube coils as performance and reliability are significantly affected.

**SIZE 24 EXPANDED DATA**

CFM		HIGH STAGE 24 Size Outdoor With FCM4X48*** Indoor Cooling																									
		Outdoor Ambient Temperature - Degrees F, Dry Bulb							Entering Indoor Temperature - Degrees F, Wet Bulb																		
		75	85	95	105	115	57	62	63††	67	72	72	57	62	63††	67	72										
600	MBH†	23.55	25.21	25.74	27.90	30.93	22.63	24.03	24.53	26.59	29.47	21.65	22.76	23.23	25.18	27.93	20.60	21.42	21.85	23.71	26.31	19.48	20.02	20.41	22.17	24.62	
	S/T†	1.00	0.90	0.73	0.70	0.53	1.00	0.88	0.71	0.68	0.51	1.00	0.86	0.69	0.67	0.50	1.00	0.84	0.67	0.65	0.48	1.00	0.83	0.66	0.63	0.47	
	AMPS*	6.00	6.03	6.04	6.08	6.14	6.84	6.86	6.87	6.91	6.95	7.80	7.82	7.83	7.86	7.90	8.93	8.94	8.95	8.98	9.02	10.27	10.28	10.29	10.32	10.35	
	HI PR	245	247	247	249	252	285	287	287	290	293	329	331	331	334	337	378	379	380	382	386	431	432	433	433	435	439
	LO PR	119	127	129	139	153	122	129	131	141	155	125	131	133	143	157	128	133	135	146	160	132	136	138	148	163	
650	MBH†	24.32	25.70	26.22	28.42	31.50	23.35	24.47	24.96	27.06	29.99	22.32	23.17	23.62	25.62	28.39	21.22	21.79	22.20	24.10	26.72	20.05	20.36	20.73	22.51	24.98	
	S/T†	1.00	0.92	0.75	0.72	0.54	1.00	0.90	0.73	0.70	0.52	1.00	0.88	0.71	0.68	0.50	1.00	0.87	0.69	0.66	0.49	1.00	0.85	0.67	0.65	0.47	
	AMPS*	6.04	6.06	6.07	6.12	6.17	6.87	6.90	6.90	6.94	6.98	7.83	7.85	7.86	7.89	7.93	8.96	8.97	8.98	9.01	9.05	10.31	10.32	10.32	10.35	10.38	
	HI PR	246	247	248	248	250	286	287	288	290	293	330	331	332	334	338	379	380	380	383	386	432	433	433	433	436	440
	LO PR	123	129	131	142	155	125	131	133	144	158	129	133	135	146	160	132	135	137	148	162	136	138	140	150	165	
700	MBH†	25.01	26.13	26.64	28.88	32.00	24.01	24.87	25.35	27.48	30.43	22.93	23.53	23.97	25.99	28.79	21.78	22.13	22.52	24.43	27.08	20.58	20.69	21.00	22.80	25.28	
	S/T†	1.00	0.95	0.76	0.73	0.54	1.00	0.93	0.74	0.71	0.53	1.00	0.91	0.72	0.70	0.51	1.00	0.89	0.71	0.68	0.50	1.00	0.87	0.69	0.67	0.48	
	AMPS*	6.07	6.10	6.10	6.15	6.20	6.91	6.93	6.93	6.97	7.01	7.87	7.88	7.89	7.92	7.96	9.00	9.00	9.01	9.04	9.08	10.34	10.35	10.35	10.38	10.41	
	HI PR	247	248	248	250	253	287	288	288	291	294	331	332	332	335	338	380	380	381	383	387	433	433	433	434	436	440
	LO PR	126	131	133	144	158	129	133	135	146	160	132	135	137	148	162	135	137	139	150	164	139	140	141	152	167	
800	MBH†	26.25	26.87	27.36	29.64	32.81	25.17	25.57	26.00	28.16	31.17	24.01	24.20	24.55	26.60	29.44	22.79	22.83	23.03	24.97	27.65	21.50	21.54	21.46	23.27	25.79	
	S/T†	1.00	0.99	0.79	0.76	0.56	1.00	0.98	0.77	0.75	0.55	1.00	0.96	0.76	0.73	0.53	1.00	1.00	0.74	0.72	0.52	1.00	1.00	0.73	0.70	0.50	
	AMPS*	6.14	6.16	6.17	6.20	6.25	6.98	6.98	6.99	7.03	7.07	7.94	7.94	7.95	7.98	8.01	9.06	9.06	9.07	9.10	9.13	10.41	10.41	10.41	10.44	10.47	
	HI PR	248	249	249	251	254	288	289	289	291	294	332	333	333	336	339	381	381	381	384	388	435	435	435	434	437	441
	LO PR	132	135	137	148	162	135	137	139	149	164	138	139	140	151	166	141	142	142	153	168	145	145	145	156	170	

† Total capacities are net (l.D blower heat subtracted) system capacities based on 25° line set.  
 If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 ‡ S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

**SIZE 24 EXPANDED DATA**

CFM		Low STAGE 24 Size Outdoor With FCM4X48**** Indoor Cooling																									
		Outdoor Ambient Temperature - Degrees F, Dry Bulb																									
		85					95					105					115										
		Entering Indoor Temperature - Degrees F, Wet Bulb																									
		57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72						
480	MBh†	18.33	19.34	19.75	21.41	23.73	17.06	17.83	18.20	19.73	21.86	15.75	16.27	16.61	18.00	19.96	14.43	14.72	15.01	16.29	18.08	13.13	13.21	13.44	14.61	16.25	
	S/T†	1.00	0.88	0.71	0.68	0.51	1.00	0.90	0.72	0.69	0.51	1.00	0.92	0.74	0.71	0.52	1.00	0.95	0.75	0.73	0.53	1.00	0.99	0.78	0.75	0.54	
	AMPS*	4.35	4.30	4.29	4.21	4.11	5.13	5.09	5.08	5.00	4.89	6.05	6.02	6.00	5.92	5.82	7.12	7.10	7.09	7.01	6.91	8.36	8.35	8.34	8.28	8.20	
	HI PR	242	243	244	246	248	282	283	283	285	288	325	326	326	328	331	373	374	374	376	379	426	426	426	429	432	
	LO PR	125	131	133	144	157	128	133	136	146	160	132	136	138	148	162	136	138	140	151	165	141	141	141	143	153	167
520	MBh†	18.92	19.70	20.11	21.78	24.13	17.60	18.15	18.51	20.04	22.21	16.23	16.55	16.87	18.28	20.26	14.86	14.98	15.23	16.53	18.33	13.51	13.53	13.63	14.81	16.45	
	S/T†	1.00	0.90	0.72	0.70	0.52	1.00	0.92	0.74	0.71	0.52	1.00	0.95	0.75	0.73	0.53	1.00	0.98	0.78	0.75	0.54	1.00	1.00	0.80	0.77	0.55	
	AMPS*	4.34	4.30	4.29	4.21	4.11	5.12	5.09	5.08	5.00	4.89	6.04	6.02	6.01	5.93	5.82	7.11	7.10	7.09	7.02	6.92	8.36	8.35	8.35	8.29	8.21	
	HI PR	243	244	244	246	248	282	283	284	285	288	326	326	327	329	332	374	374	374	377	380	427	427	427	427	429	432
	LO PR	129	134	136	146	160	132	136	138	148	162	136	138	140	150	164	140	141	142	153	167	144	144	144	145	155	169
560	MBh†	19.45	20.02	20.41	22.10	24.47	18.08	18.43	18.77	20.33	22.50	16.67	16.82	17.10	18.52	20.51	15.25	15.28	15.43	16.73	18.55	13.85	13.87	13.79	14.98	16.63	
	S/T†	1.00	0.93	0.74	0.71	0.53	1.00	0.95	0.75	0.73	0.53	1.00	0.98	0.77	0.75	0.54	1.00	1.00	0.80	0.77	0.55	1.00	1.00	0.82	0.80	0.57	
	AMPS*	4.33	4.31	4.29	4.22	4.11	5.11	5.10	5.08	5.00	4.89	6.03	6.03	6.01	5.93	5.82	7.11	7.11	7.10	7.03	6.93	8.36	8.36	8.36	8.30	8.22	
	HI PR	244	244	245	246	249	283	284	284	286	288	327	327	327	329	332	374	375	375	377	380	427	427	427	427	429	433
	LO PR	132	136	138	148	162	135	138	140	150	164	139	140	142	152	166	143	143	144	155	169	147	148	148	146	157	171
640	MBh†	20.40	20.59	20.91	22.63	25.03	18.94	18.97	19.21	20.78	22.98	17.43	17.46	17.47	18.91	20.92	15.93	15.95	15.75	17.06	18.88	14.44	14.47	14.06	15.26	16.91	
	S/T†	1.00	0.98	0.77	0.75	0.54	1.00	1.00	0.79	0.76	0.55	1.00	1.00	0.81	0.79	0.56	1.00	1.00	0.84	0.81	0.58	1.00	1.00	0.87	0.84	0.59	
	AMPS*	4.32	4.32	4.31	4.23	4.12	5.11	5.10	5.10	5.01	4.90	6.03	6.03	6.03	5.95	5.84	7.11	7.11	7.12	7.05	6.95	8.37	8.37	8.39	8.33	8.24	
	HI PR	245	245	245	247	249	284	284	285	286	289	328	328	328	330	333	376	376	375	378	381	429	429	428	430	433	
	LO PR	138	140	141	152	166	141	142	143	154	168	145	145	145	156	170	149	149	147	158	172	153	153	149	160	174	
800	MBh†	21.90	21.93	21.63	23.37	25.82	20.28	20.31	19.83	21.42	23.65	18.63	18.66	18.01	19.46	21.48	16.98	17.01	16.21	17.53	19.35	15.37	15.39	14.48	15.67	17.29	
	S/T†	1.00	1.00	0.84	0.82	0.58	1.00	1.00	0.86	0.84	0.59	1.00	1.00	0.89	0.87	0.61	1.00	1.00	0.92	0.90	0.63	1.00	1.00	0.96	0.94	0.65	
	AMPS*	4.32	4.32	4.34	4.26	4.15	5.11	5.11	5.13	5.05	4.93	6.03	6.03	6.07	5.99	5.88	7.12	7.12	7.17	7.09	7.00	8.40	8.40	8.45	8.38	8.30	
	HI PR	246	246	246	248	250	286	286	285	287	290	330	330	329	331	334	378	378	376	379	382	431	431	429	431	434	
	LO PR	148	148	146	157	171	151	151	148	159	173	155	155	149	160	174	158	158	151	162	176	162	162	154	165	178	

† Total capacities are net (I.D blower heat subtracted) system capacities based on 25' line set.  
 †† If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 ‡ S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db



**SIZE 36 EXPANDED DATA**

CFM		High Stage 36 Size Outdoor With FCM4X60*** Indoor Cooling																								
		Outdoor Ambient Temperature - Degrees F, Dry Bulb																								
		85					95					105					115									
		Entering Indoor Temperature - Degrees F, Wet Bulb																								
		57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72					
900	MBH†	32.70	34.90	34.70	37.54	41.47	31.88	33.74	33.33	36.04	39.84	30.95	32.44	31.82	34.44	38.06	29.87	29.57	30.21	32.69	36.14	28.62	27.88	28.45	30.80	34.06
	S/T†	1.00	0.83	0.68	0.66	0.50	1.00	0.85	0.69	0.67	0.50	1.00	0.86	0.70	0.68	0.50	1.00	0.90	0.72	0.69	0.51	1.00	0.93	0.73	0.71	0.52
	AMPS*	8.14	8.22	8.18	8.28	8.43	9.25	9.30	9.43	9.53	9.69	10.56	10.60	10.83	10.94	11.10	12.09	12.38	12.41	12.53	12.70	13.87	14.19	14.21	14.35	14.53
	HI PR	258	259	258	261	265	299	301	299	302	306	345	346	344	347	352	395	392	393	397	401	449	446	447	450	455
	LO PR	119	127	131	141	154	122	129	133	143	157	126	131	135	145	159	129	135	138	148	162	134	138	140	151	165
975	MBH†	32.97	34.58	35.34	38.20	42.18	31.96	33.19	33.89	36.64	40.47	30.84	31.67	32.34	34.96	38.64	29.62	30.05	30.66	33.17	36.52	28.27	28.35	28.85	31.21	34.49
	S/T†	1.00	0.87	0.70	0.67	0.50	1.00	0.88	0.71	0.68	0.51	1.00	0.90	0.72	0.69	0.51	1.00	0.93	0.74	0.71	0.52	1.00	1.00	0.76	0.73	0.53
	AMPS*	8.16	8.22	8.25	8.35	8.50	9.42	9.47	9.49	9.60	9.75	10.83	10.87	10.89	11.00	11.17	12.43	12.45	12.47	12.60	12.76	14.26	14.26	14.29	14.42	14.60
	HI PR	257	258	259	262	265	298	299	300	303	307	343	344	345	348	353	392	393	394	397	402	447	447	447	451	456
	LO PR	125	131	133	143	157	128	133	135	145	159	132	135	137	148	162	136	138	140	150	164	140	140	142	153	167
1050	MBH†	33.90	35.14	35.87	38.77	42.78	32.83	33.69	34.37	37.15	41.03	31.66	32.14	32.78	35.42	39.12	30.38	30.51	31.04	33.56	36.83	28.97	29.02	29.19	31.55	34.87
	S/T†	1.00	0.89	0.71	0.69	0.51	1.00	0.91	0.73	0.70	0.52	1.00	0.93	0.74	0.71	0.52	1.00	0.99	0.76	0.73	0.53	1.00	1.00	0.78	0.75	0.54
	AMPS*	8.24	8.28	8.31	8.41	8.56	9.50	9.53	9.55	9.66	9.82	10.91	10.93	10.95	11.07	11.23	12.51	12.52	12.54	12.66	12.82	14.34	14.35	14.35	14.49	14.67
	HI PR	258	259	260	262	266	299	300	300	303	308	344	345	345	349	353	394	394	394	398	402	448	448	448	452	457
	LO PR	129	133	135	145	159	132	135	137	148	161	135	137	139	150	164	139	140	142	152	167	143	144	144	155	169
1200	MBH†	35.53	36.08	36.77	39.69	43.77	34.37	34.59	35.19	37.99	41.91	33.09	33.14	33.49	36.00	39.91	31.70	31.75	31.68	34.22	37.76	30.18	30.22	29.73	32.12	35.45
	S/T†	1.00	0.94	0.74	0.72	0.53	1.00	0.96	0.76	0.73	0.53	1.00	1.00	0.77	0.75	0.54	1.00	1.00	0.79	0.77	0.55	1.00	1.00	0.82	0.79	0.56
	AMPS*	8.38	8.40	8.42	8.53	8.69	9.65	9.65	9.67	9.79	9.95	11.06	11.06	11.07	11.18	11.36	12.67	12.67	12.66	12.79	12.96	14.51	14.51	14.48	14.61	14.80
	HI PR	259	260	261	263	267	301	301	302	305	309	346	346	346	349	354	396	396	396	399	404	450	450	449	453	458
	LO PR	135	137	139	149	163	138	139	140	151	165	141	142	142	153	167	145	145	145	155	170	149	149	147	158	172

† Total capacities are net (1.D blower heat subtracted) system capacities based on 25' line set.  
 If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 ‡ S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

**SIZE 36 EXPANDED DATA**

CFM		Low Stage 36 Size Outdoor With FCM4X60**** Indoor Cooling																									
		Outdoor Ambient Temperature - Degrees F, Dry Bulb									Entering Indoor Temperature - Degrees F, Wet Bulb																
		75	80	85	90	95	100	105	110	115	57	62	67	72	77	82	87	92	97								
720	MBH†	26.38	27.49	28.07	30.48	33.85	24.62	25.44	25.96	28.18	31.30	22.86	23.38	23.85	25.90	28.76	21.07	21.32	21.72	23.59	26.21	19.24	19.27	19.55	21.25	23.63	
	S/T†	1.00	0.89	0.71	0.69	0.51	1.00	0.89	0.71	0.68	0.51	1.00	0.89	0.71	0.68	0.50	1.00	0.89	0.71	0.68	0.50	1.00	1.00	1.00	0.70	0.68	0.49
	AMPS*	6.10	6.06	6.05	5.96	5.84	7.10	7.07	7.06	6.98	6.88	8.28	8.26	8.25	8.17	8.08	9.67	9.65	9.64	9.57	9.47	11.28	11.28	11.27	11.19	11.09	
	HI PR	252	253	253	256	259	292	293	294	296	300	337	338	338	341	345	386	387	387	387	390	395	440	440	441	444	448
LO PR	128	133	135	146	160	131	135	137	148	162	134	137	139	150	164	138	139	141	141	152	167	142	142	144	154	169	
780	MBH†	27.19	27.99	28.55	30.99	34.41	25.37	25.89	26.38	28.63	31.78	23.54	23.80	24.22	26.29	29.18	21.68	21.72	22.04	23.93	26.57	19.78	19.82	19.82	21.53	23.92	
	S/T†	1.00	0.92	0.73	0.70	0.52	1.00	0.92	0.73	0.70	0.52	1.00	0.92	0.73	0.70	0.51	1.00	1.00	0.73	0.70	0.51	1.00	1.00	1.00	0.73	0.70	0.50
	AMPS*	6.10	6.07	6.05	5.96	5.84	7.10	7.08	7.07	6.99	6.88	8.28	8.27	8.26	8.18	8.09	9.67	9.66	9.65	9.58	9.48	11.28	11.28	11.28	11.20	11.10	
	HI PR	253	253	254	256	259	293	294	294	297	301	338	338	339	342	346	388	388	388	388	391	395	441	441	441	445	449
LO PR	132	135	137	148	162	135	137	139	150	164	138	139	141	152	166	142	142	143	143	154	169	146	146	145	156	171	
840	MBH†	27.94	28.45	28.97	31.44	34.89	26.06	26.30	26.75	29.02	32.20	24.16	24.20	24.54	26.62	29.54	22.24	22.28	22.31	24.21	26.87	20.27	20.30	20.05	21.77	24.17	
	S/T†	1.00	0.94	0.75	0.72	0.53	1.00	0.94	0.75	0.72	0.52	1.00	1.00	0.75	0.72	0.52	1.00	1.00	0.75	0.72	0.52	1.00	1.00	1.00	0.75	0.72	0.52
	AMPS*	6.09	6.07	6.06	5.97	5.85	7.10	7.09	7.08	7.00	6.89	8.28	8.28	8.27	8.20	8.10	9.67	9.66	9.67	9.59	9.49	11.28	11.28	11.29	11.21	11.11	
	HI PR	253	254	254	257	260	294	294	295	297	301	339	339	340	342	346	388	388	388	388	392	396	442	442	442	445	449
LO PR	135	138	139	150	165	138	139	141	152	166	141	142	143	154	168	145	145	145	145	156	171	149	149	147	158	173	
960	MBH†	29.28	29.33	29.67	32.16	35.66	27.27	27.32	27.37	29.65	32.87	25.25	25.29	25.08	27.17	30.11	23.21	23.25	22.77	24.68	27.35	21.12	21.12	21.16	20.44	22.17	24.58
	S/T†	1.00	1.00	0.78	0.76	0.55	1.00	1.00	0.78	0.76	0.55	1.00	1.00	0.78	0.76	0.54	1.00	1.00	0.79	0.76	0.54	1.00	1.00	1.00	0.79	0.77	0.54
	AMPS*	6.09	6.08	6.08	5.99	5.86	7.10	7.10	7.10	7.02	6.91	8.29	8.29	8.30	8.22	8.12	9.68	9.67	9.69	9.62	9.52	11.29	11.29	11.29	11.32	11.24	11.14
	HI PR	255	255	255	257	261	296	296	296	298	302	341	341	340	343	347	390	390	389	392	397	444	444	444	443	446	450
LO PR	142	142	143	154	168	144	145	144	155	170	147	148	146	157	172	151	151	148	159	174	155	155	155	150	161	176	

† Total capacities are net (I.D blower heat subtracted) system capacities based on 25' line set.  
 ‡ If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 † S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

**SIZE 48 EXPANDED DATA**

		High Stage 48 Size Outdoor With FCM4X60*** Indoor Cooling																									
		Outdoor Ambient Temperature - Degrees F, Dry Bulb							Entering Indoor Temperature - Degrees F, Wet Bulb																		
		75			85				95			105					115										
CFM	57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72							
<b>1200</b>	MBH†	43.46	46.33	47.30	50.97	55.93	42.21	44.61	45.53	49.04	53.78	40.74	42.60	43.47	46.82	51.34	39.09	40.41	41.21	44.39	48.66	37.31	38.08	38.82	41.79	45.81	
	S/T†	1.00	0.86	0.70	0.67	0.51	1.00	0.88	0.71	0.68	0.51	1.00	0.90	0.72	0.69	0.52	1.00	0.92	0.73	0.71	0.52	1.00	0.95	0.75	0.73	0.53	
	AMPS*	11.58	11.65	11.68	11.76	11.86	13.19	13.26	13.28	13.37	13.49	15.06	15.12	15.14	15.25	15.38	17.25	17.30	17.33	17.46	17.62	19.85	19.89	19.92	20.07	20.28	
	HI PR	261	263	263	266	269	303	305	305	308	312	349	350	351	354	358	399	400	401	404	409	454	454	455	455	459	464
	LO PR	118	126	128	139	152	122	128	131	141	155	125	131	133	143	157	129	133	135	146	160	133	136	138	149	163	
<b>1300</b>	MBH†	44.75	47.12	48.08	51.77	56.75	43.43	45.33	46.24	49.76	54.52	41.88	43.26	44.10	47.46	51.99	40.14	40.99	41.77	44.94	49.23	38.27	38.64	39.30	42.27	46.30	
	S/T†	1.00	0.88	0.71	0.68	0.51	1.00	0.90	0.72	0.70	0.52	1.00	0.92	0.74	0.71	0.52	1.00	0.95	0.75	0.73	0.53	1.00	0.98	0.77	0.75	0.54	
	AMPS*	11.69	11.75	11.78	11.86	11.95	13.31	13.36	13.39	13.48	13.59	15.17	15.22	15.25	15.36	15.49	17.38	17.41	17.44	17.57	17.74	19.99	20.01	20.04	20.19	20.39	
	HI PR	261	263	264	266	270	304	305	306	309	313	349	351	352	355	359	400	401	402	405	409	455	455	456	456	459	464
	LO PR	122	128	131	141	155	125	131	133	143	157	129	133	135	146	160	133	135	137	148	162	137	138	140	151	165	
<b>1400</b>	MBH†	45.92	47.81	48.75	52.45	57.45	44.54	45.96	46.84	50.37	55.15	42.90	43.83	44.64	48.00	52.54	41.08	41.54	42.24	45.42	49.70	39.13	39.20	39.70	42.67	46.70	
	S/T†	1.00	0.91	0.73	0.70	0.52	1.00	0.93	0.74	0.71	0.53	1.00	0.95	0.75	0.73	0.53	1.00	0.98	0.77	0.75	0.54	1.00	1.00	0.79	0.77	0.55	
	AMPS*	11.80	11.85	11.87	11.95	12.05	13.42	13.46	13.49	13.58	13.68	15.30	15.33	15.35	15.46	15.59	17.50	17.52	17.55	17.68	17.84	20.13	20.13	20.13	20.15	20.31	
	HI PR	262	264	264	267	270	305	306	307	309	313	351	352	352	356	360	401	402	402	406	410	456	456	457	460	465	
	LO PR	126	131	133	143	157	129	133	135	145	159	132	135	137	148	162	136	137	139	150	164	140	140	142	152	167	
<b>1600</b>	MBH†	47.95	48.96	49.83	53.54	58.56	46.44	47.04	47.81	51.34	56.14	44.67	44.88	45.50	48.86	53.41	42.71	42.77	42.99	46.15	50.45	40.60	40.65	40.35	43.30	47.33	
	S/T†	1.00	0.95	0.76	0.73	0.54	1.00	0.97	0.77	0.75	0.54	1.00	0.99	0.79	0.76	0.55	1.00	1.00	0.81	0.79	0.56	1.00	1.00	0.84	0.81	0.58	
	AMPS*	12.02	12.04	12.06	12.14	12.23	13.64	13.66	13.68	13.77	13.87	15.53	15.54	15.55	15.66	15.79	17.75	17.75	17.76	17.89	18.05	20.39	20.39	20.37	20.53	20.73	
	HI PR	264	265	265	268	271	306	307	307	310	314	352	353	353	356	360	403	403	403	406	411	458	458	457	461	466	
	LO PR	132	134	136	147	161	135	136	138	149	163	138	139	140	151	165	142	142	142	153	168	146	146	144	155	170	

† Total capacities are net (l.D blower heat subtracted) system capacities based on 25' line set.  
 If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 ‡ S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

**SIZE 48 EXPANDED DATA**

CFM		Low Stage 48 Size Outdoor With FCM4X60**** Indoor Cooling																									
		Outdoor Ambient Temperature - Degrees F, Dry Bulb									Entering Indoor Temperature - Degrees F, Wet Bulb																
		75	80	85	90	95	100	105	110	115	57	62	67	72	77	82	87	92	97								
960	MBH†	34.39	35.91	36.69	39.84	44.16	31.71	32.79	33.50	36.41	40.42	28.95	29.59	30.22	32.90	36.59	26.16	26.38	26.89	29.34	32.71	23.36	23.40	23.58	25.80	28.84	
	S/T†	1.00	0.90	0.72	0.69	0.51	1.00	0.91	0.73	0.70	0.52	1.00	0.94	0.74	0.71	0.52	1.00	0.96	0.76	0.73	0.53	1.00	1.00	1.00	0.78	0.75	0.54
	AMPS*	8.09	8.04	8.02	7.92	7.80	9.46	9.42	9.40	9.31	9.20	11.02	11.00	10.98	10.90	10.79	12.81	12.80	12.78	12.70	12.60	14.85	14.84	14.84	14.76	14.65	
	HI PR	254	255	256	259	262	295	296	297	300	304	340	341	342	345	349	389	389	390	394	398	443	443	443	447	452	
	LO PR	128	132	135	145	159	131	135	137	147	161	135	137	139	150	163	139	140	142	152	166	144	144	144	144	155	169
1040	MBH†	35.44	36.54	37.30	40.48	44.85	32.66	33.35	34.03	36.97	41.02	29.81	30.11	30.67	33.37	37.10	26.91	26.96	27.28	29.74	33.14	24.02	24.06	23.91	26.13	29.19	
	S/T†	1.00	0.93	0.74	0.71	0.52	1.00	0.94	0.75	0.72	0.53	1.00	0.96	0.76	0.73	0.53	1.00	1.00	0.78	0.75	0.54	1.00	1.00	1.00	0.81	0.78	0.55
	AMPS*	8.10	8.07	8.05	7.95	7.82	9.47	9.45	9.43	9.34	9.23	11.03	11.03	11.01	10.93	10.83	12.82	12.82	12.82	12.74	12.64	14.87	14.87	14.88	14.79	14.69	
	HI PR	255	256	257	259	262	296	297	297	300	304	341	341	342	345	350	390	390	391	394	399	444	444	444	444	447	452
	LO PR	131	135	137	147	161	134	137	139	149	163	138	139	141	152	166	142	143	144	154	168	147	147	147	146	157	171
1120	MBH†	36.40	37.10	37.83	41.02	45.45	33.53	33.88	34.49	37.44	41.54	30.58	30.64	31.07	33.78	37.54	27.60	27.65	27.62	30.09	33.51	24.62	24.66	24.19	26.41	29.49	
	S/T†	1.00	0.95	0.75	0.73	0.53	1.00	0.97	0.77	0.74	0.54	1.00	1.00	0.78	0.75	0.54	1.00	1.00	0.80	0.77	0.55	1.00	1.00	1.00	0.83	0.80	0.56
	AMPS*	8.11	8.09	8.08	7.98	7.85	9.49	9.48	9.47	9.38	9.26	11.06	11.06	11.05	10.96	10.86	12.85	12.85	12.86	12.77	12.67	14.89	14.89	14.91	14.83	14.73	
	HI PR	256	256	257	260	263	297	297	298	301	305	342	342	343	346	350	391	391	391	395	399	445	445	445	444	448	453
	LO PR	135	137	139	149	163	138	139	141	151	165	141	142	143	154	167	146	146	145	156	170	150	151	148	159	173	
1280	MBH†	38.08	38.15	38.69	41.90	46.40	35.05	35.11	35.25	38.21	42.37	31.95	32.00	31.72	34.44	38.25	28.80	28.85	28.17	30.64	34.09	25.65	25.69	24.65	26.87	29.97	
	S/T†	1.00	1.00	0.79	0.76	0.55	1.00	1.00	0.80	0.78	0.56	1.00	1.00	0.82	0.79	0.56	1.00	1.00	0.85	0.82	0.58	1.00	1.00	1.00	0.88	0.85	0.59
	AMPS*	8.15	8.15	8.14	8.04	7.92	9.53	9.53	9.53	9.45	9.33	11.11	11.11	11.12	11.04	10.94	12.90	12.90	12.93	12.85	12.75	14.95	14.95	15.00	14.91	14.81	
	HI PR	257	257	258	260	264	299	299	299	302	306	344	344	344	347	351	393	393	393	392	396	400	447	447	445	449	454
	LO PR	141	141	142	153	167	144	144	144	154	169	147	147	147	146	157	171	151	151	148	159	173	156	156	150	161	175

† Total capacities are net (1D blower heat subtracted) system capacities based on 25' line set.  
 ‡ If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 † S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

**SIZE 60 EXPANDED DATA**

CFM		High Stage 60 Size Outdoor With FCM4X60*** Indoor Cooling																								
		Outdoor Ambient Temperature - Degrees F, Dry Bulb					Entering Indoor Temperature - Degrees F, Wet Bulb					95														
		75	85				95					105					115									
	57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72						
1500	MBH†	52.99	55.93	57.08	61.59	67.81	51.69	54.12	55.22	59.56	65.53	50.28	52.11	53.16	57.29	62.98	48.59	49.83	50.77	54.69	60.07	46.55	47.17	48.01	51.67	56.73
	S/T†	1.00	0.88	0.70	0.68	0.51	1.00	0.89	0.71	0.69	0.51	1.00	0.91	0.73	0.70	0.52	1.00	0.93	0.74	0.71	0.52	1.00	0.96	0.76	0.73	0.53
	AMPS*	14.63	14.75	14.79	14.98	15.24	16.46	16.57	16.61	16.80	17.05	18.62	18.70	18.74	18.92	19.18	21.12	21.17	21.21	21.40	21.67	24.00	24.03	24.07	24.27	24.55
	HI PR	264	266	266	269	273	306	308	309	312	316	353	355	356	359	364	404	405	406	410	415	459	460	461	465	470
	LO PR	120	127	129	139	153	123	129	131	141	155	127	131	133	144	157	130	133	135	146	160	134	136	138	149	163
1625	MBH†	54.45	56.79	57.92	62.47	68.75	53.11	54.91	56.00	60.36	66.38	51.58	52.85	53.84	58.00	63.73	49.80	50.50	51.37	55.30	60.73	47.65	47.84	48.52	52.19	57.27
	S/T†	1.00	0.90	0.72	0.69	0.51	1.00	0.92	0.73	0.70	0.52	1.00	0.94	0.74	0.72	0.53	1.00	0.96	0.76	0.73	0.53	1.00	0.99	0.78	0.76	0.54
	AMPS*	14.83	14.92	14.97	15.16	15.43	16.67	16.75	16.79	16.97	17.24	18.82	18.88	18.92	19.10	19.36	21.32	21.35	21.39	21.58	21.85	24.21	24.22	24.25	24.46	24.73
	HI PR	265	266	267	270	274	308	309	310	313	317	354	356	356	360	364	405	406	407	410	416	461	461	461	466	471
	LO PR	124	129	131	141	155	127	131	133	143	157	130	133	135	146	159	134	136	137	148	162	138	138	140	151	165
1750	MBH†	55.78	57.54	58.65	63.23	69.56	54.36	55.63	56.64	61.04	67.09	52.76	53.51	54.41	58.59	64.36	50.87	51.15	51.88	55.82	61.27	48.62	48.69	48.94	52.62	57.72
	S/T†	1.00	0.92	0.74	0.71	0.52	1.00	0.94	0.75	0.72	0.53	1.00	0.96	0.76	0.74	0.53	1.00	0.98	0.78	0.75	0.54	1.00	1.00	0.80	0.78	0.56
	AMPS*	15.02	15.10	15.14	15.33	15.60	16.87	16.92	16.96	17.15	17.41	19.02	19.05	19.09	19.28	19.54	21.52	21.54	21.57	21.76	22.03	24.42	24.42	24.43	24.64	24.92
	HI PR	266	267	268	270	274	309	310	310	314	317	356	356	357	360	365	406	407	407	411	416	462	462	462	466	472
	LO PR	127	131	133	143	157	130	133	135	145	159	133	135	137	147	161	137	138	139	150	164	141	141	141	152	166
2000	MBH†	58.08	58.86	59.80	64.43	70.83	56.52	56.89	57.69	62.10	68.23	54.77	54.85	55.33	59.53	65.35	52.71	52.78	52.67	56.61	62.11	50.28	50.34	49.62	53.29	58.42
	S/T†	1.00	0.97	0.77	0.74	0.54	1.00	0.99	0.78	0.76	0.54	1.00	1.00	0.80	0.77	0.55	1.00	1.00	0.82	0.80	0.56	1.00	1.00	0.84	0.82	0.58
	AMPS*	15.40	15.43	15.47	15.67	15.94	17.25	17.26	17.29	17.48	17.76	19.41	19.41	19.43	19.62	19.89	21.92	21.92	21.91	22.11	22.38	24.82	24.83	24.78	24.99	25.27
	HI PR	267	268	268	271	275	310	311	311	314	318	357	357	358	361	366	408	409	408	412	417	464	464	463	467	473
	LO PR	133	135	136	147	160	136	137	138	149	162	139	139	140	151	165	143	143	142	153	167	147	147	144	155	169

† Total capacities are net (I.D blower heat subtracted) system capacities based on 25' line set.  
 If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 ‡ S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBHxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

**SIZE 60 EXPANDED DATA**

CFM		Low Stage 60 Size Outdoor With FCM4X60**** Indoor Cooling																			
		Outdoor Ambient Temperature - Degrees F, Dry Bulb																			
		85					95					105					115				
		Entering Indoor Temperature - Degrees F, Wet Bulb																			
		57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72	57	62	63††	67	72
1200	MBh†	40.76	42.19	43.06	46.64	51.58	37.16	38.07	38.84	42.08	46.57	33.46	33.89	34.53	37.46	41.50	29.77	29.82	30.23	32.85	36.46
	S/T†	1.00	0.92	0.73	0.70	0.52	1.00	0.94	0.75	0.72	0.53	1.00	0.97	0.77	0.74	0.54	1.00	1.00	0.79	0.76	0.55
	AMPS*	10.26	10.22	10.20	10.10	9.95	11.55	11.52	11.51	11.41	11.28	12.98	12.97	12.95	12.86	12.75	14.56	14.56	14.55	14.47	14.37
	HI PR	256	257	257	260	263	297	298	298	301	305	342	342	343	346	350	391	391	391	395	399
	LO PR	129	133	135	146	159	133	136	138	148	162	137	138	140	150	164	141	141	143	153	167
1300	MBh†	41.91	42.85	43.68	47.28	52.26	38.17	38.66	39.36	42.63	47.15	34.36	34.46	34.97	37.91	41.97	30.54	30.59	30.59	33.22	36.85
	S/T†	1.00	0.95	0.75	0.72	0.53	1.00	0.97	0.77	0.74	0.54	1.00	1.00	0.79	0.76	0.55	1.00	1.00	0.82	0.79	0.56
	AMPS*	10.32	10.29	10.28	10.17	10.02	11.61	11.60	11.58	11.48	11.35	13.04	13.04	13.03	12.94	12.82	14.62	14.62	14.63	14.55	14.44
	HI PR	256	257	258	260	263	298	298	299	302	305	343	343	343	347	350	392	392	392	395	400
	LO PR	133	136	137	148	162	136	138	139	150	164	140	140	142	152	166	145	145	144	155	169
1400	MBh†	42.94	43.45	44.20	47.83	52.84	39.09	39.24	39.81	43.09	47.63	35.16	35.21	35.34	38.29	42.37	31.22	31.27	30.89	33.53	37.17
	S/T†	1.00	0.97	0.77	0.74	0.54	1.00	0.99	0.79	0.76	0.55	1.00	1.00	0.81	0.78	0.56	1.00	1.00	0.84	0.81	0.57
	AMPS*	10.38	10.37	10.35	10.24	10.09	11.67	11.67	11.66	11.56	11.42	13.10	13.10	13.11	13.02	12.90	14.69	14.69	14.71	14.63	14.52
	HI PR	257	258	258	261	264	299	299	299	302	306	344	344	344	347	351	393	393	392	396	400
	LO PR	136	138	139	150	164	139	140	141	152	166	143	143	143	154	168	148	148	146	157	171
1600	MBh†	44.73	44.79	45.04	48.69	53.76	40.67	40.73	40.52	43.82	48.40	36.53	36.58	35.93	38.90	43.00	32.40	32.44	31.38	34.02	37.66
	S/T†	1.00	1.00	0.81	0.78	0.56	1.00	1.00	0.83	0.80	0.57	1.00	1.00	0.85	0.83	0.58	1.00	1.00	0.89	0.86	0.60
	AMPS*	10.51	10.51	10.51	10.39	10.24	11.80	11.80	11.81	11.71	11.58	13.24	13.24	13.27	13.18	13.06	14.84	14.84	14.88	14.79	14.68
	HI PR	259	259	259	261	264	300	300	300	303	306	345	345	345	348	352	395	395	393	397	401
	LO PR	142	142	142	153	167	145	145	144	155	169	149	149	146	157	171	153	153	148	159	173

† Total capacities are net (1/D blower heat subtracted) system capacities based on 25' line set.  
 ‡ If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.  
 \* System amps are total of indoor and outdoor amps  
 † S/T are based on 80 F db entering air at the indoor coil. For sensible capacities at other than 80 F db, deduct 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree below 80 F, or add 835 Btuh per 1000 cfm of indoor coil air from MBhxS/T for each degree above 80 F  
 †† At TVA rating indoor condition (75 F db/ 63 F wb), All other indoor air temperatures are at 80 F db

**ACCESSORY USAGE GUIDELINES**

Accessory	REQUIRED FOR LONG LINE APPLICATIONS* (Over 80 ft. / 24.38 m)	Required for Sea Coast Application (within 2 miles/3.22 km)
Crankcase Heater	Yes, standard	No
Compressor Start Assist Capacitor and Relay	No	No
Liquid Line Solenoid Valve	See Long Line Applications Guide-line	No
Support Feet	No	Recommended

\* For Line Set lengths between 80 and 200 ft (24.4 and 61m) horizontal, or more than 20 ft (6.1m) indoor-outdoor vertical separation, refer to the Long Line Application Guideline document.

**ACCESSORIES**

Part Number	Description	Used On Model Size GKA1	Used On Model Size GKA2
NASA401LS	Liquid Line Solenoid Valve, R-410A	ALL	ALL
NASA001TD	Time Delay Relay, Indoor Blower	ALL	ALL
NASA001SF	Support Feet, 4" (102mm) tall	ALL	ALL
NASA010SC	Hard Start Kit (Capacitor & Relay)	24	N/A
NASA011SC	Hard Start Kit (Capacitor & Relay)	36	N/A
NASA012SC	Hard Start Kit (Capacitor & Relay)	48	24, 36
NASA013SC	Hard Start Kit (Capacitor & Relay)	60	N/A
NASA015SC	Hard Start Kit (Capacitor & Relay)	N/A	48, 60

**WALL CONTROL**

TSTAT0101SC	Observer™ Self Configuring Communicating Wall Control	ALL	ALL
-------------	---	-----	-----