

**3 THRU 6 TONS  
50 HERTZ SPLIT SYSTEM  
CONDENSING UNITS  
[10.6 to 20.5kw]**

**CKF series**

- Nominal capacities from 36,000 to 70,000 BTUH [10.6 to 20.5 KW]

**Description / Application**

- Outdoor condensing units for ground level or rooftop applications.
- Designed for use with evaporator blowers "AR" series air handlers.

**Cabinet Construction**

- Heavy gauge, G-90 galvanized, with removable access panels, completely weatherized, properly reinforced and braced. Steel sheet metal shall be zinc-coated and galvanized by the hot dip process.
- Weather resistant baked-on epoxy paint finish with 500 Hr. salt spray approval.

**Third Party Tested**

- Independent third party performance tested with matching outdoor sections by ETL Testing Laboratories, Inc., per ARI Standard 210-240.

**Standard Equipment**

- Quiet operating top discharge.
- High efficiency performance.
- Brass suction and liquid line shut off valves.
- High-pressure manual reset control.
- Copper tube, aluminum fin coil construction.
- Liquid line filter drier factory installed.
- Sweat connections on all units.
- Fully charged for 15' [4.57m] tubing length.
- Totally enclosed permanently lubricated condenser motor designed for PSC operation with internal thermal overload protection.
- Isolated compressor compartment.
- Quiet hermetically sealed reciprocating compressor with internal overload protection.

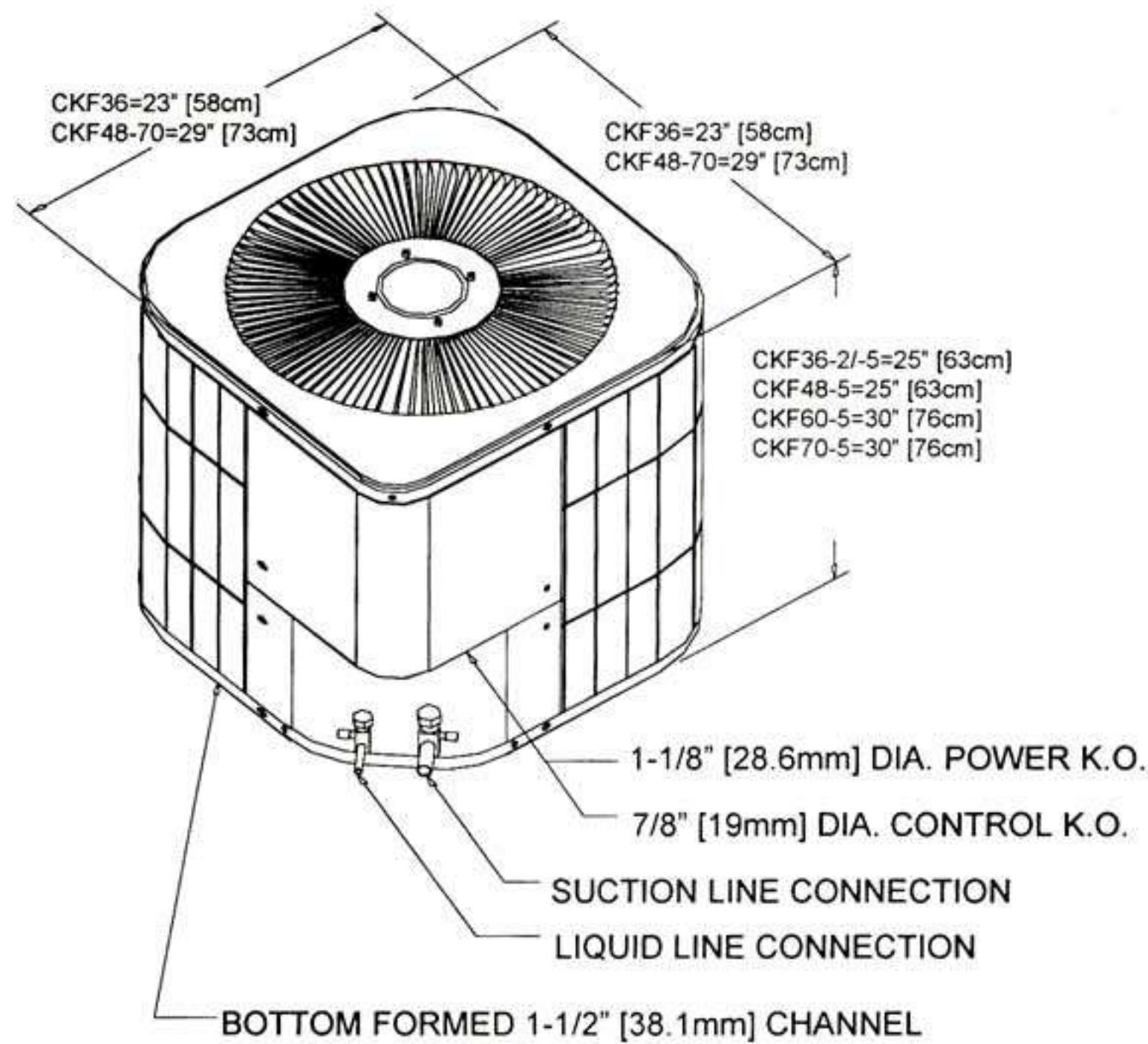
Made in the USA by:  
Goodman Manufacturing Company, L.P.  
1501 Seamist - Houston, Texas 77008



## PHYSICAL DATA

ITEM	CKF36-2D/5D	CKF48-5	CKF60-5	CKF70-5
<b>FAN</b>				
DIA.	18	18	22	22
RPM	950	950	950	950
<b>COIL</b>				
FACE AREA SQ. FT	11.25	14.58	17.5	21.8
TUBE DIA. - INCHES	3/8 [9.5mm]	3/8 [9.5mm]	3/8 [9.5mm]	3/8 [9.5mm]
NO. ROWS/ FINS PER INCH	1/18	1/20	1/20	1/20
NO. OF TUBES	22	20	24	30
FIN TYPE	RIPPLED	RIPPLED	RIPPLED	RIPPLED
<b>REFRIGERANT CON.</b>				
LIQUID	3/8 [9.5mm]	3/8 [9.5mm]	3/8 [9.5mm]	3/8 [9.5mm]
SUCTION	3/4 [19mm]	7/8 [22.2mm]	7/8 [22.2mm]	7/8 [22.2mm]
TYPE	SWEAT	SWEAT	SWEAT	SWEAT
SHIPPING WEIGHT – LBS	150 [68.1kg]	170 [77.2kg]	195 [88.5kg]	208 [94.4kg]

## DIMENSIONAL DATA



## PERFORMANCE RATING (@ STANDARD AIRFLOW)

MODEL		95°F [35°C] D.B. outdoor 80°F [26.5°C] D.B./67°F [19.4°C] W.B. indoor BTUH						115°F [46.1°C] D.B. outdoor 80°F [26.5°C] D.B./67°F [19.4°C] W.B. indoor BTUH					
OUTDOOR	INDOOR	TOTAL [kw]		SENSIBLE [kw]		KWI	EER	TOTAL [kw]		SENSIBLE [kw]		KWI	
CKF36-2D	A36-00-2R	32,300	[9.5]	21,700	[6.4]	3.80	8.5	28,400	[8.3]	20,400	[6.0]	4.18	
CKF36-5D	A36-00-2R	32,300	[9.5]	21,700	[6.4]	3.80	8.5	28,400	[8.3]	20,400	[6.0]	4.18	
CKF48-5	A48-00-2R	39,100	[11.5]	26,800	[7.8]	4.30	9.0	34,400	[10.1]	25,200	[7.4]	4.78	
CKF60-5	A60-00-2R	53,900	[15.8]	36,200	[10.6]	5.80	9.2	45,300	[13.3]	34,000	[10.0]	6.44	
CKF70-5	A60-00-2R	62,000	[18.2]	44,000	[12.9]	6.20	10.0	53,300	[15.6]	40,500	[11.9]	7.00	
	A90-00-2R	65,000	[19.0]	42,250	[12.4]	6.20	10.2	55,000	[16.1]	40,150	[11.8]	7.20	

EER = ENERGY EFFICIENCY RATIO = CAPACITY (BTUH) / KW INPUT  
 KWI = COMPRESSOR + INDOOR BLOWER+ OUTDOOR FAN WATTS  
 COOLING PERFORMANCE BASED UPON STANDARD AIRFLOW CFM

## ELECTRICAL DATA

MODEL	POWER SUPPLY			*MINIMUM CIRCUIT AMPACITY	MAXIMUM OVERCURRENT PROTECTION	MAXIMUM VOLTS	MINIMUM VOLTS	COMPRESSOR				COND. FAN MOTOR			
	VOLTS	PH	HZ					RLA	LRA	WATTS	VOLTS	FLA	HP	WATTS	VOLTS
CKF36-2D	220/240	1	50	22.9	40	264	195	17.6	96	3320	220/240	0.9	1/4	165	415
CKF36-5D	380/415	3	50	8.3	15	456	342	5.7	39.0	3320	380/415	0.5	1/4	165	415
CKF48-5	380/415	3	50	11.2	20	456	342	6.8	45.0	3740	380/415	0.5	1/4	165	415
CKF60-5	380/415	3	50	13.7	20	456	342	8.8	62.0	5090	380/415	0.6	1/4	210	415
CKF70-5	380/415	3	50	14.0	20	456	342	10.3	79.0	5400	380/415	1.2	1/3	300	415

\*WIRE SIZE SHOULD BE IN ACCORANCE WITH LOCAL ELECTRICAL CODES. EXTENSIVE WIRE RUNS WILL REQUIRE LARGER WIRE SIZE.

**NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE.**



**OUTDOOR UNIT CKF36-2D/-5D**

**INDOOR UNIT A36-00-2R**

INDOOR AIR		CONDENSER AIR TEMPERATURE														
SCFM	WB	75F			85F			95F			105F			115F		
		TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH
915	72	37.5	16.3	3.57	35.9	15.6	3.76	33.9	15.0	3.91	32.0	14.3	4.10	30.0	13.7	4.29
	67	34.2	20.2	3.34	32.6	19.5	3.50	31.0	18.9	3.69	29.1	18.2	3.88	27.1	18.2	4.07
	62	31.7	23.9	3.12	30.0	23.2	3.31	29.2	22.6	3.50	28.4	21.9	3.69	26.8	21.0	3.84
	57	30.4	25.8	3.04	29.1	24.7	3.23	27.8	23.7	3.42	26.2	22.4	3.65	24.9	21.0	3.80
1077	72	39.1	18.0	3.69	37.1	17.4	3.84	35.2	16.7	4.03	33.3	16.3	4.22	31.0	15.4	4.41
	67	35.9	23.0	3.46	34.2	22.4	3.61	32.3	21.7	3.80	30.4	21.0	3.99	28.4	20.4	4.18
	62	33.3	27.6	3.27	31.7	26.7	3.42	30.0	25.6	3.61	28.7	24.3	3.80	27.1	23.0	4.03
	57	32.9	28.0	3.23	31.3	26.9	3.42	30.0	25.6	3.61	28.7	24.3	3.80	27.1	23.0	4.03
1238	72	40.1	19.5	3.76	38.1	18.9	3.91	36.2	18.2	4.10	33.9	17.6	4.29	32.0	17.1	4.48
	67	37.1	25.4	3.53	35.2	25.0	3.69	33.3	24.3	3.88	31.3	23.4	4.07	29.4	22.8	4.26
	62	34.9	29.7	3.38	33.6	28.4	3.57	31.7	27.1	3.76	30.4	25.8	3.95	28.4	24.3	4.18
	57	34.9	29.7	3.38	33.6	28.4	3.57	31.7	27.1	3.76	30.4	25.8	3.95	28.4	24.3	4.18

Sensible heat capacities shown are based on 80F DB entering air at the evaporator coil.

For sensible heat capacities at other than 80F DB, deduct 84 BTUH per 100 CFM of evaporator coil air for each degree below 80F, or add 84 BTUH per 100 CFM of evaporator coil air per degree above 80F.

CAPACITIES AT 95F OUTDOOR., 75F DB AND 63F WB INDOOR

TOTAL MBTUH 30.5                      SENSIBLE MBTUH 20.3                      LATENT MBTUH 10.2

**OUTDOOR UNIT CKF48-5**

**INDOOR UNIT A48-00-2R**

INDOOR AIR		CONDENSER AIR TEMPERATURE														
SCFM	WB	75F			85F			95F			105F			115F		
		TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH
1108	72	45.4	20.1	4.08	43.4	19.3	4.30	41.1	18.5	4.47	38.7	17.7	4.69	36.4	16.9	4.91
	67	41.4	24.9	3.82	39.5	24.1	4.00	37.5	23.3	4.21	35.2	22.5	4.43	32.8	22.5	4.65
	62	38.3	29.5	3.56	36.4	28.7	3.78	35.4	27.9	4.00	34.4	27.1	4.21	32.5	26.0	4.39
	57	36.8	31.9	3.48	35.2	30.6	3.69	33.6	29.2	3.91	31.7	27.6	4.17	30.1	26.0	4.34
1303	72	47.3	22.2	4.21	45.0	21.4	4.39	42.6	20.6	4.61	40.3	20.1	4.82	37.5	19.0	5.04
	67	43.4	28.4	3.95	41.4	27.6	4.13	39.1	26.8	4.34	36.8	26.0	4.56	34.4	25.2	4.78
	62	40.3	34.0	3.74	38.3	33.0	3.91	36.4	31.6	4.13	34.8	30.0	4.34	32.8	28.4	4.61
	57	39.9	34.6	3.69	37.9	33.2	3.91	36.4	31.6	4.13	34.8	30.0	4.34	32.8	28.4	4.61
1499	72	48.5	24.1	4.30	46.1	23.3	4.47	43.8	22.5	4.69	41.1	21.7	4.91	38.7	21.2	5.13
	67	45.0	31.4	4.04	42.6	30.8	4.21	40.3	30.0	4.43	37.9	28.9	4.65	35.6	28.1	4.87
	62	42.2	36.7	3.87	40.7	35.1	4.08	38.3	33.5	4.30	36.8	31.9	4.52	34.4	30.0	4.78
	57	42.2	36.7	3.87	40.7	35.1	4.08	38.3	33.5	4.30	36.8	31.9	4.52	34.4	30.0	4.78

Sensible heat capacities shown are based on 80F DB entering air at the evaporator coil.

For sensible heat capacities at other than 80F DB, deduct 84 BTUH per 100 CFM of evaporator coil air for each degree below 80F, or add 84 BTUH per 100 CFM of evaporator coil air per degree above 80F.

CAPACITIES AT 95F OUTDOOR., 75F DB AND 63F WB INDOOR

TOTAL MBTUH 36.9                      SENSIBLE MBTUH 25.2                      LATENT MBTUH 11.7

**OUTDOOR UNIT CKF60-5**

**INDOOR UNIT A60-00-2R**

INDOOR AIR		CONDENSER AIR TEMPERATURE														
SCFM	WB	75F			85F			95F			105F			115F		
		TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH
1527	72	62.5	27.2	5.51	59.8	26.1	5.80	56.6	25.0	6.03	53.4	23.9	6.33	50.1	22.8	6.62
	67	57.1	33.7	5.16	54.4	32.6	5.39	51.7	31.5	5.68	48.5	30.4	5.98	45.3	30.4	6.27
	62	52.8	39.8	4.80	50.1	38.7	5.10	48.8	37.6	5.39	47.4	36.6	5.68	44.7	35.1	5.92
	57	50.7	43.1	4.69	48.5	41.3	4.98	46.4	39.5	5.27	43.7	37.3	5.62	41.5	35.1	5.86
1797	72	65.2	30.0	5.68	62.0	29.0	5.92	58.8	27.9	6.21	55.5	27.2	6.50	51.7	25.7	6.80
	67	59.8	38.4	5.33	57.1	37.3	5.57	53.9	36.2	5.86	50.7	35.1	6.15	47.4	34.0	6.44
	62	55.5	46.0	5.04	52.8	44.5	5.27	50.1	42.7	5.57	48.0	40.5	5.86	45.3	38.4	6.21
	57	55.0	46.7	4.98	52.3	44.9	5.27	50.1	42.7	5.57	48.0	40.5	5.86	45.3	38.4	6.21
2066	72	66.8	32.6	5.80	63.6	31.5	6.03	60.4	30.4	6.33	56.6	29.3	6.62	53.4	28.6	6.91
	67	62.0	42.4	5.45	58.8	41.6	5.68	55.5	40.5	5.98	52.3	39.1	6.27	49.0	38.0	6.56
	62	58.2	49.6	5.21	56.1	47.4	5.51	52.8	45.3	5.80	50.7	43.1	6.09	47.4	40.5	6.44
	57	58.2	49.6	5.21	56.1	47.4	5.51	52.8	45.3	5.80	50.7	43.1	6.09	47.4	40.5	6.44

Sensible heat capacities shown are based on 80F DB entering air at the evaporator coil.

For sensible heat capacities at other than 80F DB, deduct 84 BTUH per 100 CFM of evaporator coil air for each degree below 80F, or add 84 BTUH per 100 CFM of evaporator coil air per degree above 80F.

CAPACITIES AT 95F OUTDOOR., 75F DB AND 63F WB INDOOR

TOTAL MBTUH 50.9                      SENSIBLE MBTUH 33.9                      LATENT MBTUH 17.0



**OUTDOOR UNIT CKF70-5**

**INDOOR UNIT A60-00-2R**

INDOOR AIR		CONDENSER AIR TEMPERATURE														
		75F			85F			95F			105F			115F		
SCFM	WB	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH
1757	72	71.9	33.0	5.83	68.8	31.7	6.14	65.1	30.4	6.39	61.4	29.0	6.70	57.7	27.7	7.01
	67	65.7	40.9	5.46	62.6	39.6	5.70	59.5	38.3	6.01	55.8	37.0	6.32	52.1	37.0	6.63
	62	60.8	48.4	5.08	57.7	47.1	5.39	56.1	45.8	5.70	54.6	44.4	6.01	51.5	42.7	6.26
	57	58.3	52.4	4.96	55.8	50.2	5.27	53.3	48.0	5.58	50.2	45.3	5.95	47.7	42.7	6.20
2067	72	75.0	36.5	6.01	71.3	35.2	6.26	67.6	33.9	6.57	63.9	33.0	6.88	59.5	31.2	7.19
	67	68.8	46.6	5.64	65.7	45.3	5.89	62.0	44.0	6.20	58.3	42.7	6.51	54.6	41.4	6.82
	62	63.9	55.9	5.33	60.8	54.1	5.58	57.7	51.9	5.89	55.2	49.3	6.20	52.1	46.6	6.57
	57	63.2	56.8	5.27	60.1	54.6	5.58	57.7	51.9	5.89	55.2	49.3	6.20	52.1	46.6	6.57
2377	72	76.9	39.6	6.14	73.2	38.3	6.39	69.4	37.0	6.70	65.1	35.6	7.01	61.4	34.8	7.32
	67	71.3	51.5	5.77	67.6	50.6	6.01	63.9	49.3	6.32	60.1	47.5	6.63	56.4	46.2	6.94
	62	67.0	60.3	5.52	64.5	57.6	5.83	60.8	55.0	6.14	58.3	52.4	6.45	54.6	49.3	6.82
	57	67.0	60.3	5.52	64.5	57.6	5.83	60.8	55.0	6.14	58.3	52.4	6.45	54.6	49.3	6.82

Sensible heat capacities shown are based on 80F DB entering air at the evaporator coil.

For sensible heat capacities at other than 80F DB, deduct 84 BTUH per 100 CFM of evaporator coil air for each degree below 80F, or add 84 BTUH per 100 CFM of evaporator coil air per degree above 80F.

CAPACITIES AT 95F OUTDOOR., 75F DB AND 63F WB INDOOR

TOTAL MBTUH 58.5                      SENSIBLE MBTUH 41.7                      LATENT MBTUH 16.9

**OUTDOOR UNIT CKF70-5**

**INDOOR UNIT A90-00-2**

INDOOR AIR		CONDENSER AIR TEMPERATURE														
		75F			85F			95F			105F			115F		
SCFM	WB	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH	TOTAL MBTUH	SENS MBTUH	WATTS KWH
1842	72	75.4	31.7	5.99	72.2	30.4	6.31	68.3	29.2	6.56	64.4	27.9	6.88	60.5	26.6	7.20
	67	68.9	39.3	5.61	65.7	38.0	5.86	62.4	36.8	6.18	58.5	35.5	6.50	54.6	35.5	6.82
	62	63.7	46.5	5.23	60.5	45.2	5.54	58.8	43.9	5.86	57.2	42.7	6.18	54.0	41.0	6.44
	57	61.1	50.3	5.10	58.5	48.2	5.42	55.9	46.1	5.74	52.7	43.5	6.12	50.1	41.0	6.37
2167	72	78.7	35.1	6.18	74.8	33.8	6.44	70.9	32.5	6.75	67.0	31.7	7.07	62.4	30.0	7.39
	67	72.2	44.8	5.80	68.9	43.5	6.05	65.0	42.3	6.37	61.1	41.0	6.69	57.2	39.7	7.01
	62	67.0	53.7	5.48	63.7	52.0	5.74	60.5	49.9	6.05	57.9	47.3	6.37	54.6	44.8	6.75
	57	66.3	54.5	5.42	63.1	52.4	5.74	60.5	49.9	6.05	57.9	47.3	6.37	54.6	44.8	6.75
2492	72	80.6	38.0	6.31	76.7	36.8	6.56	72.8	35.5	6.88	68.3	34.2	7.20	64.4	33.4	7.52
	67	74.8	49.4	5.93	70.9	48.6	6.18	67.0	47.3	6.50	63.1	45.6	6.82	59.2	44.4	7.14
	62	70.2	57.9	5.67	67.6	55.3	5.99	63.7	52.8	6.31	61.1	50.3	6.63	57.2	47.3	7.01
	57	70.2	57.9	5.67	67.6	55.3	5.99	63.7	52.8	6.31	61.1	50.3	6.63	57.2	47.3	7.01

Sensible heat capacities shown are based on 80F DB entering air at the evaporator coil.

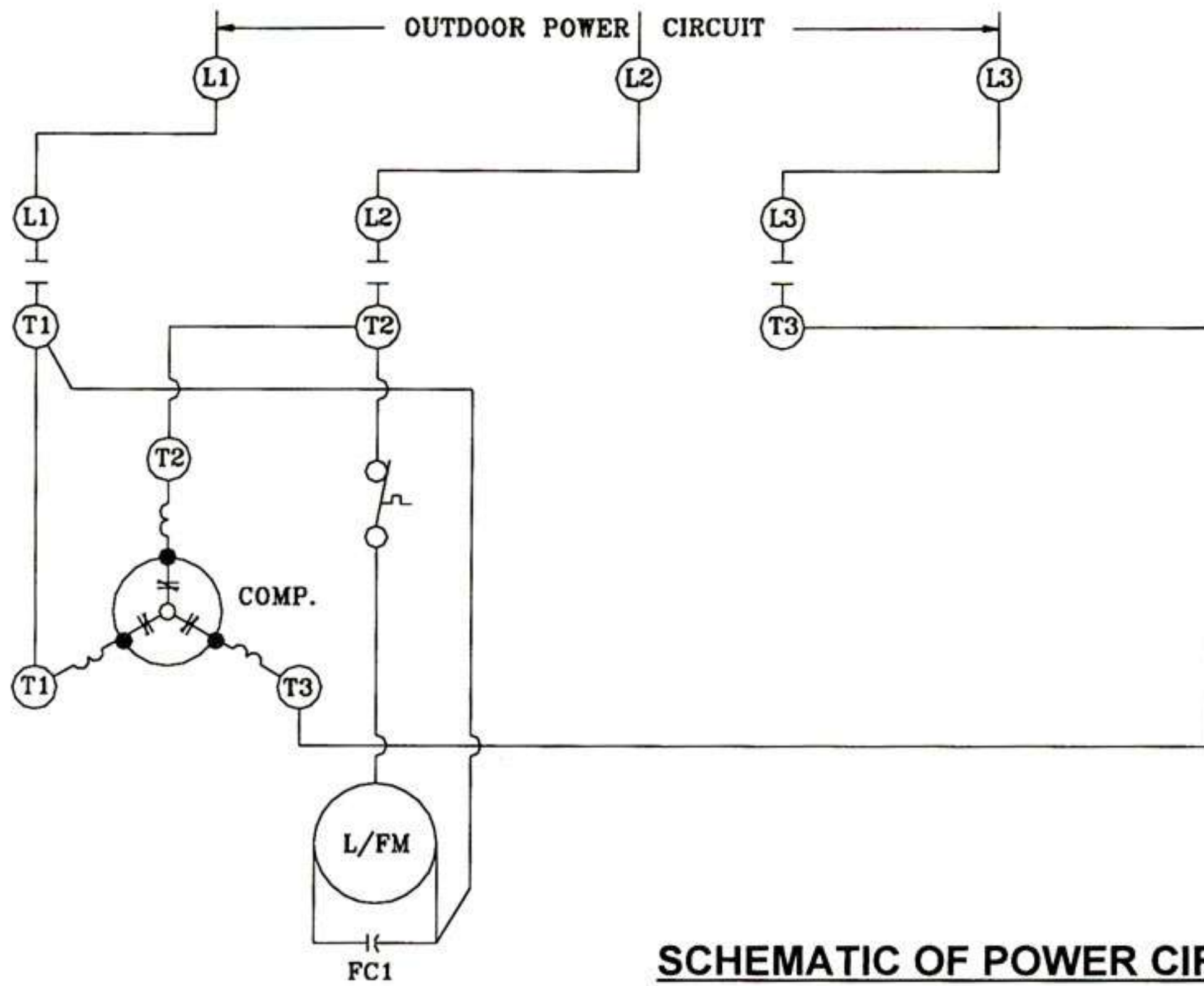
For sensible heat capacities at other than 80F DB, deduct 84 BTUH per 100 CFM of evaporator coil air for each degree below 80F, or add 84 BTUH per 100 CFM of evaporator coil air per degree above 80F.

CAPACITIES AT 95F OUTDOOR., 75F DB AND 63F WB INDOOR

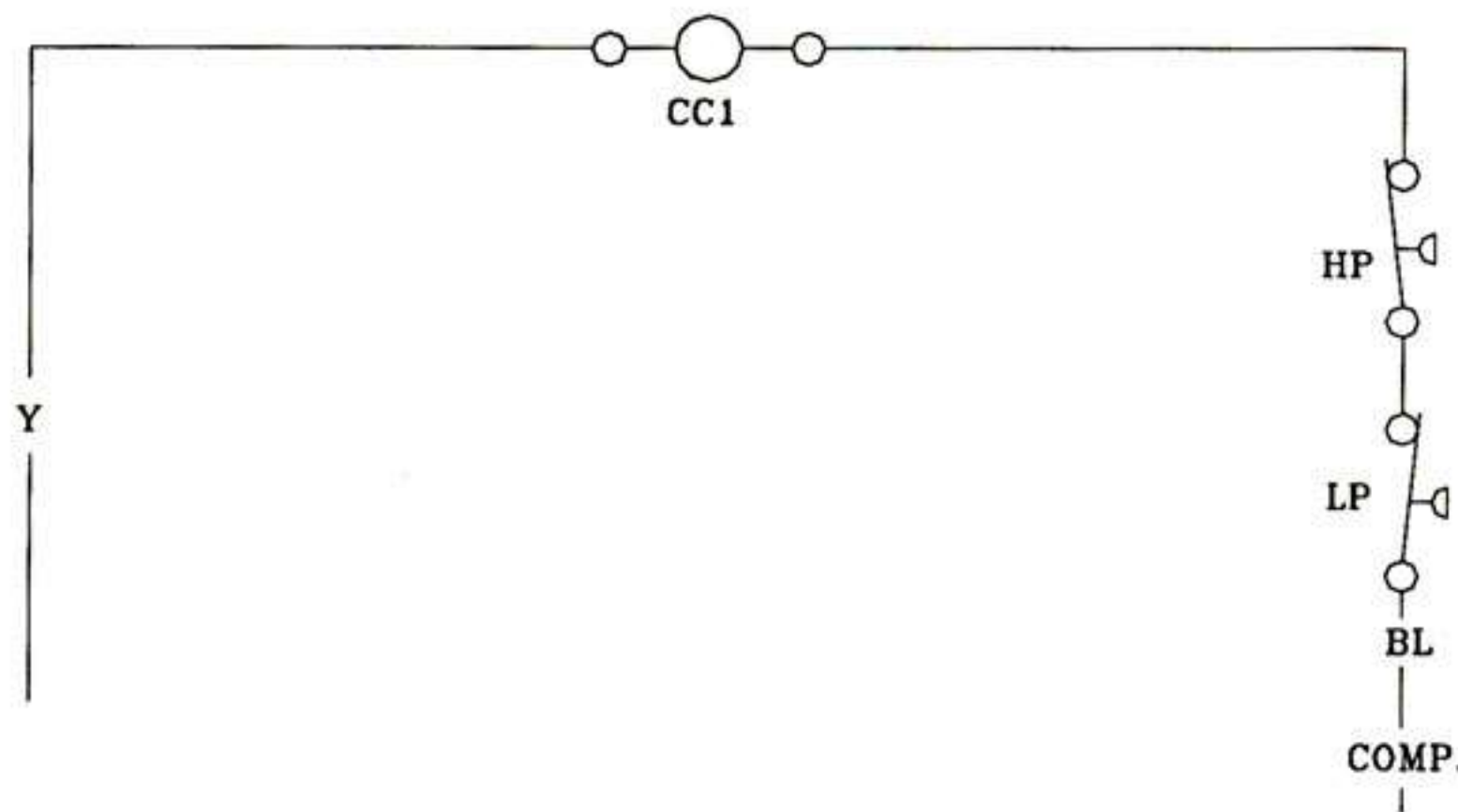
TOTAL MBTUH 61.4                      SENSIBLE MBTUH 39.2                      LATENT MBTUH 22.1



**SCHEMATIC WIRING DIAGRAM**  
**"CKF" SERIES: CKF36-5, CKF48-5, CKF60-5 & CKF70-5**  
**CONDENSING UNITS**



**SCHEMATIC OF POWER CIRCUIT**



**SCHEMATIC OF LOW VOLTAGE CIRCUIT**

**COMPONENT LEGEND**

C-CONTACTOR  
 COMP-COMPRESSOR  
 FC-FAN MOTOR CAPACITOR  
 HP-HIGH PRESSURE CONTROL  
 FM-FAN MOTOR  
 IO-INTERNAL OVERLOAD

**WIRE CODE**

Y-YELLOW  
 PU-PURPLE