



Air Conditioning & Heating

CPC COMMERCIAL

15- & 20-Ton, THREE-PHASE PACKAGED AIR CONDITIONER



15-Ton COOLING CAPACITY: 180,000 BTU/H

20-Ton COOLING CAPACITY: 240,000 BTU/H



Contents

Nomenclature	2
Product Features	3
Product Specifications	4
Airflow Data	6
Expanded Cooling Data	8
Heat Kit Electrical Data	12
Dimensions	14
Wiring Diagrams	18
Accessories	20

* Complete warranty details available from your local dealer or at www.goodmanmfg.com.



NOMENCLATURE

	C	P	C	240	140	3	B	X	X	X
	1	2	3	4,5,6	7,8,9	10	11	12	13	14
Brand										Factory-Installed Special Features
C Commercial										X No Features
Configuration										Special Treatment
P Packaged Multi-Position										X No Treatment / Standard
										Aluminized Heat Exchanger (AH)
Application										J Ultra-Gold Heat Exchanger
C Cooling										S Stainless Steel Heat Exchanger
G Gas Heat										T Ultra-Gold & Stainless Steel
Nominal Gross Cooling Capacity										Economizer Options (Factory Installed)
036 3 Tons 102 8½ Tons										X No Economizer
048 4 Tons 120 10 Tons										
060 5 Tons 150 12½ Tons										Supply Fan/Drive Type/Motor
072 6 Tons 180 15 Tons										B Belt Drive
090 7½ Tons 240 20 Tons										D Direct Drive
Heating Capacity -- Electric										Voltage
031 31 kW Electric Heater 060 60 kW Electric Heater								1 208V 1-Phase	4 460V 3-Phase	
046 46 kW Electric Heater 075 75 kW Electric Heater								2 220/240V 1-Phase 50 Hz	5 380/415V 3-Phase 50 Hz	
								3 208V 3-Phase	7 575V 3-Phase	

PRODUCT FEATURES

Standard Features

- R-410A chlorine-free refrigerant
- High-efficiency scroll compressor
- Copper tube / aluminum fin coils
- High- and low-pressure switches
- High-capacity, steel-cased filter dryer
- Built-in filter rack with standard 2" filters (convertible to 4" filters)
- Heater kits with single-point entry
- Crankcase heaters
- Contactor with lugs
- 24-volt terminal strip
- Easy to service
- Bottom utility entry
- AHRI Certified; ETL Listed

Cabinet Features

- Heavy-gauge, galvanized-steel cabinet with UV-resistant powder-paint finish
- Full Perimeter Rail
- Sloped drain pan

PRODUCT SPECIFICATIONS — 15 Tons

	CPC180*** 3B***	CPC180*** 4B***	CPC180*** 7B***
COOLING CAPACITY			
Total, BTU/h	180,000	180,000	180,000
Sensible BTU/h	134,600	134,600	134,600
EER / IEER	11 / 11.2	11 / 11.2	11 / 11.2
Decibels	88	88	88
ARI Reference #s	3965697	3965697	3965697
EVAPORATOR MOTOR / COIL			
Motor Type	Std Static	Std Static	Std Static
Indoor Nominal CFM	6,000	6,000	6,000
Indoor Motor FLA (Cooling)	9.2	4.6	4.2
Horsepower - RPM	3.0 - 1,725	3.0 - 1,725	3.0 - 1,725
Metering Device	TXV	TXV	TXV
Filter Size (#)	20 x 25 x 2 (6)	20 x 25 x 2 (6)	20 x 25 x 2 (6)
Drain Size (NPT)	1"	1"	1"
R-410A Refrigerant Charge Cir #1 & 2	290 oz.	290 oz.	290 oz.
Evaporator Coil Face Area (ft²)	20	20	20
Rows Deep / Fins per Inch	4 / 16	4 / 16	4 / 16
BELT DRIVE EVAP FAN DATA			
# of Wheels (D x W)	2 (15" x 12")	2 (15" x 12")	2 (15" x 12")
Motor Sheave	1VM50 x ¾"	1VM50 x ¾"	1VM50 x ¾"
Blower Sheave / Belt	BK100 x 1⅜" / BX45	BK100 x 1⅜" / BX45	BK100 x 1⅜" / BX45
CONDENSER FAN / COIL			
Quantity of Condenser Fan Motors	3	3	3
Horsepower - RPM	⅓ - 1,075	⅓ - 1,075	⅓ - 1,075
Fan Diameter / # Fan Blades	22 / 3	22 / 3	22 / 3
Outdoor Nominal CFM	7,200	7,200	7,200
Face Area (ft²)	53.3	53.3	53.3
Rows Deep / Fins per Inch	2 / 18	2 / 18	2 / 18
COMPRESSOR			
Quantity / Type	2 / Scroll	2 / Scroll	2 / Scroll
Compressor RLA / LRA CIR. #1	25 / 164	12.2 / 100	9.0 / 78
Compressor RLA / LRA CIR. #2	29.5 / 195	14.7 / 95	12.2 / 80
ELECTRICAL DATA / STATIC			
Voltage / Phase / Frequency	208-230/3/60	460/3/60	575/3/60
Standard Max Static	1.2	1.2	1.2
Outdoor Fan FLA / LRA	2.4 / 5.2	1.2 / 2.6	0.9 / 2.2
Total Unit Amps	70.9	35.1	28.1
Min. Circuit Ampacity¹	78.3	38.8	31.2
Max. Overcurrent Protection (amps)²	100	50	40
Entrance Power Supply	2⅝"	2⅝"	2⅝"
Entrance Control Voltage	⅞"	⅞"	⅞"
OPERATING WEIGHT (LBS)	2035	2035	2035
SHIP WEIGHT (LBS)	2150	2150	2150

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

PRODUCT SPECIFICATIONS — 20 Tons

	CPC240 ***3B***	CPC240 ***4B***	CPC240 ***7B***
COOLING CAPACITY			
Total, BTU/h	240,000	240,000	240,000
Sensible BTU/h	181,000	181,000	181,000
EER / IEER	10.0 / 10.1	10.0 / 10.1	10.0 / 10.1
Decibels	88	88	88
AHRI Reference #s	3897347	3897347	3897347
EVAPORATOR MOTOR / COIL			
Motor Type	Std Static Belt Drive	Std Static Belt Drive	Std Static Belt Drive
Indoor Nominal CFM	7,000	7,000	7,000
Indoor Motor FLA (Cooling)	12.7	6.4	5.1
Horsepower - RPM	5.0 - 1,725	5.0 - 1,725	5.0 - 1,725
Metering Device	TXV	TXV	TXV
Filter Size (#)	25 x 25 x 2 (6)	25 x 25 x 2 (6)	25 x 25 x 2 (6)
Drain Size (NPT)	1"	1"	1"
R-410A Refrigerant Charge Cir #s 1 & 2	320 oz.	320 oz.	320 oz.
Face Area (ft ²)	20	20	20
Rows Deep / Fins per Inch	4 / 16	4 / 16	4 / 16
BELT DRIVE EVAP FAN DATA			
# of Wheels (D x W)	2 (15" x 15")	2 (15" x 15")	2 (15" x 15")
Motor Sheave	1VP60 x 1½"	1VP60 x 1½"	1VP60 x 1½"
Blower Sheave / Belt	BK100 x 1⅞" / BX46	BK100 x 1⅞" / BX46	BK100 x 1⅞" / BX46
CONDENSER FAN / COIL			
Quantity of Condenser Fan Motors	3	3	3
Horsepower - RPM	⅓ - 1,075	⅓ - 1,075	⅓ - 1,075
Fan Diameter / # Fan Blades	22 / 3	22 / 3	22 / 3
Outdoor Nominal CFM	7,200	7,200	7,200
Face Area (ft ²)	53.3	53.3	53.3
Rows Deep / Fins per Inch	2 / 18	2 / 18	2 / 18
COMPRESSOR			
Quantity / Type	2 / Scroll	2 / Scroll	2 / Scroll
Compressor RLA / LRA ea.	33.3 / 239	17.9 / 125	12.8 / 80
ELECTRICAL DATA / STATIC			
Voltage / Phase / Frequency	208-230/3/60	460/3/60	575/3/60
Standard Max Static	1.4	1.4	1.4
Outdoor Fan FLA / LRA	2.4 / 5.2	1.2 / 2.6	0.9 / 2.2
Total Unit Amps	86.5	45.8	33.4
Min. Circuit Ampacity ¹	95	50	37
Max. Overcurrent Protection (amps) ²	125	60	45
Entrance Power Supply	2⅝"	2⅝"	2⅝"
Entrance Control Voltage	⅞"	⅞"	⅞"
OPERATING WEIGHT (LBS)			
SHIP WEIGHT (LBS)			
	2120	2120	2120
	2235	2235	2235

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² May use fuses or HACR-type circuit breakers of the same size as noted.

Note: Always check the S&R plate for electrical data on the unit being installed.

AIRFLOW DATA — 15 Tons

STANDARD BELT DRIVE — DOWN SHOT

ESP (" H ₂ O)	TURNS OPEN													
	0		1		2		3		4		5		6	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2											7203	2.18	6718	1.84
0.4							7306	2.54	6777	2.14	6257	1.80	5711	1.48
0.6			7477	2.97	6899	2.51	6323	2.10	5716	1.72	5103	1.39		
0.8	7112	2.96	6467	2.46	5795	2.01	5101	1.61						
1.0	5983	2.38	5190	1.89										
1.2	4426	1.71												

HIGH-STATIC BELT DRIVE — DOWN SHOT

ESP (" H ₂ O)	TURNS OPEN													
	0		1		2		3		4		5		6	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
1.0											7120	3.26	6223	2.55
1.2									6927	3.39	5924	2.61		
1.4							6739	3.52	5602	2.65				
1.6					6587	3.69	5245	2.67						
1.8			6419	3.84	4877	2.70								
2.0	6261	4.01												

NOTES

- Airflow table represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
- Any adjustment made to the blower should not cause the motor to draw more than the motor rated RLA. Application that exceed the above could require a larger motor. Minimum rated SCFM is 350 per ton.
- High-static airflow requires installation of high kit (HSKT180) or factory-built high-static model.
- Unit factory shipped with the sheave set at 2.5 turns open.

AIRFLOW DATA — 20 TONS

STANDARD BELT DRIVE — DOWN SHOT

ESP (" H ₂ O)	TURNS OPEN													
	0		1		2		3		4		5		6	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
0.2													9664	4.05
0.4									9570	4.08	9197	3.82	8702	3.51
0.6							9038	3.82	8460	3.46	7949	3.14		
0.8			8171	2.93	7630	3.70	7068	2.79						
1.0			7901	2.85	7203	3.42								
1.2	7344	4.35												

HIGH-STATIC BELT DRIVE — DOWN SHOT

ESP (" H ₂ O)	TURNS OPEN													
	0		1		2		3		4		5		6	
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
1.0									9090	5.79	8297	5.06	7479	3.62
1.2							8774	5.60	7914	4.83	6989	4.07		
1.4					8471	5.43	7549	4.63						
1.6			8209	6.14	7194	4.45								
1.8	7967	6.02	6883	5.01										
2.0	6594	4.87												

NOTES

- Airflow table represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
- Any adjustment made to the blower should not cause the motor to draw more than the motor rated RLA. Application that exceed the above could require a larger motor. Minimum rated SCFM is 350 per ton.
- High-static airflow requires installation of high kit (HSKT240) or factory-built high-static model.
- Unit factory shipped with the sheave set at 2.5 turns open.

EXPANDED COOLING DATA — 15 TONS

		OUTDOOR AMBIENT TEMPERATURE																								
		65				75				85				95				105				115				
		ENTERING INDOOR WET BULB TEMPERATURE																								
IDB	AIRFLOW	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
70	6750	MBh	176.4	182.8	200.3	-	172.3	178.6	195.6	-	168.2	174.3	191.0	-	164.1	170.1	186.3	-	155.9	161.6	177.0	-	144.4	149.7	164.0	-
		S/T	0.75	0.63	0.43	-	0.78	0.65	0.45	-	0.80	0.67	0.46	-	0.82	0.69	0.48	-	0.86	0.71	0.49	-	0.86	0.72	0.50	-
		ΔT	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	17	15	11	-
		HI PR	236	253	268	-	264	284	300	-	301	323	342	-	342	368	389	-	385	414	438	-	425	458	484	-
	LO PR	103	110	120	-	109	116	127	-	114	121	132	-	119	127	139	-	125	133	145	-	129	138	150	-	
	MBh	171.2	177.5	194.5	-	167.3	173.4	189.9	-	163.3	169.2	185.4	-	159.3	165.1	180.9	-	151.3	156.9	171.9	-	140.2	145.3	159.2	-	
	S/T	0.72	0.60	0.41	-	0.74	0.62	0.43	-	0.76	0.64	0.44	-	0.79	0.66	0.45	-	0.82	0.68	0.47	-	0.82	0.69	0.48	-	
	ΔT	19	16	12	-	19	16	13	-	19	16	13	-	19	17	13	-	19	16	12	-	18	15	12	-	
	HI PR	233	251	265	-	262	282	297	-	298	320	338	-	339	365	385	-	381	410	433	-	421	453	479	-	
	LO PR	102	109	119	-	108	115	126	-	112	120	131	-	118	126	137	-	124	132	144	-	128	136	149	-	
4800	MBh	158.1	163.8	179.5	-	154.4	160.0	175.3	-	150.7	156.2	171.1	-	147.0	152.4	167.0	-	139.7	144.8	158.6	-	129.4	134.1	146.9	-	
	S/T	0.69	0.58	0.40	-	0.72	0.60	0.41	-	0.73	0.61	0.42	-	0.76	0.63	0.44	-	0.79	0.66	0.46	-	0.79	0.66	0.46	-	
	ΔT	21	18	14	-	21	18	14	-	21	18	14	-	21	18	14	-	21	18	14	-	20	17	13	-	
	HI PR	226	243	257	-	254	273	288	-	289	311	328	-	329	354	374	-	370	398	420	-	409	440	464	-	
	LO PR	99	106	115	-	105	112	122	-	109	116	127	-	115	122	133	-	120	128	139	-	124	132	144	-	

75	6750	MBh	179.4	184.7	199.9	214.5	175.2	180.4	195.3	209.6	171.0	176.1	190.6	204.6	166.9	171.8	186.0	199.6	158.5	163.2	176.7	189.6	146.8	151.2	163.6	175.6
		S/T	0.85	0.76	0.58	0.37	0.89	0.79	0.60	0.39	0.91	0.81	0.61	0.40	0.94	0.84	0.63	0.41	0.97	0.87	0.66	0.42	0.98	0.88	0.66	0.43
		ΔT	21	19	16	11	21	19	16	11	21	19	16	11	21	20	16	11	21	19	16	11	20	18	15	10
		HI PR	238	256	270	282	267	287	303	316	304	327	345	360	346	372	393	410	389	419	442	461	430	463	488	509
	6000	LO PR	104	111	121	129	110	117	128	137	115	122	133	142	121	128	140	149	126	134	147	156	131	139	152	162
		MBh	174.2	179.3	194.1	208.3	170.1	175.1	189.6	203.5	166.1	171.0	185.1	198.6	162.0	166.8	180.5	193.8	153.9	158.5	171.5	184.1	142.6	146.8	158.9	170.5
		S/T	0.81	0.73	0.55	0.35	0.84	0.76	0.57	0.37	0.87	0.77	0.59	0.38	0.89	0.80	0.60	0.39	0.93	0.83	0.63	0.40	0.94	0.84	0.63	0.41
		ΔT	22	20	16	11	22	20	17	11	22	20	17	11	22	20	17	12	22	20	16	11	20	19	15	11
	4800	HI PR	236	253	268	279	264	284	300	313	301	323	342	356	342	368	389	406	385	415	438	457	426	458	484	504
		LO PR	103	110	120	128	109	116	127	135	114	121	132	141	119	127	139	148	125	133	145	155	129	138	150	160

IDB: Entering Indoor Dry Bulb Temperature

Shaded area reflects ACCA (TVA) conditions

High and low pressures are measured at the liquid and suction access fittings.

EXPANDED COOLING DATA — 15 TONS (CONT.)

		OUTDOOR AMBIENT TEMPERATURE																																			
		65						75						85						95						105						115					
		ENTERING INDOOR WET BULB TEMPERATURE																																			
IDB	AIRFLOW	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71												
80	6750	MBh	182.6	186.5	199.3	213.1	178.3	182.2	194.7	208.1	174.1	177.9	190.0	203.1	169.8	173.5	185.4	198.2	161.3	164.9	176.1	188.3	149.4	152.7	163.2	174.4											
		S/T	0.94	0.88	0.71	0.53	0.97	0.91	0.74	0.55	1.00	0.93	0.76	0.57	1.00	0.96	0.78	0.59	1.00	1.00	0.81	0.61	1.00	1.00	0.82	0.61											
		ΔT	23	22	19	16	24	23	20	16	24	23	20	16	23	23	20	16	22	22	20	16	20	21	18	15											
		Hi PR	240	259	273	285	270	290	306	320	307	330	349	363	349	376	397	414	393	423	447	466	434	467	493	515											
		LO PR	106	112	123	131	112	119	130	138	116	123	135	143	122	130	141	151	128	136	148	158	132	140	153	163											
	MBh	177.2	181.1	193.5	206.9	173.1	176.9	189.0	202.0	169.0	172.7	184.5	197.2	164.9	168.5	180.0	192.4	156.6	160.1	171.0	182.8	145.1	148.3	158.4	169.3												
	S/T	0.89	0.84	0.68	0.51	0.93	0.87	0.71	0.53	0.95	0.89	0.72	0.54	0.98	0.92	0.75	0.56	1.00	0.95	0.78	0.58	1.00	0.96	0.78	0.59												
	ΔT	24	23	20	16	25	24	20	16	25	24	20	16	25	24	21	16	24	23	20	16	22	22	19	15												
	Hi PR	238	256	270	282	267	287	303	316	304	327	345	360	346	372	393	410	389	419	442	461	430	463	488	510												
	LO PR	105	111	121	129	110	117	128	137	115	122	133	142	121	128	140	149	126	134	147	156	131	139	152	162												
4800	MBh	163.6	167.2	178.6	190.9	159.8	163.3	174.4	186.5	156.0	159.4	170.3	182.0	152.2	155.5	166.1	177.6	144.6	147.7	157.8	168.7	133.9	136.8	146.2	156.3												
	S/T	0.86	0.81	0.66	0.49	0.89	0.84	0.68	0.51	0.92	0.86	0.70	0.52	0.94	0.89	0.72	0.54	0.98	0.92	0.75	0.56	0.99	0.93	0.75	0.56												
	ΔT	27	26	22	18	27	26	23	18	27	26	23	18	28	26	23	18	27	26	23	18	25	24	21	17												
	Hi PR	231	248	262	274	259	279	294	307	295	317	335	349	335	361	381	398	377	406	429	447	417	449	474	494												
	LO PR	101	108	118	125	107	114	124	132	111	118	129	138	117	124	136	145	123	130	142	152	127	135	147	157												

85	6750	MBh	185.8	189.3	198.3	211.6	181.4	184.9	193.7	206.6	177.1	180.5	189.1	201.7	172.8	176.1	184.5	196.8	164.2	167.3	175.2	187.0	152.1	155.0	162.3	173.2
		S/T	0.98	0.95	0.86	0.69	1.00	0.98	0.89	0.72	1.00	1.00	0.91	0.74	1.00	1.00	0.94	0.76	1.00	1.00	0.97	0.79	1.00	1.00	0.98	0.80
		ΔT	25	24	23	20	25	25	23	20	24	25	23	20	24	24	24	20	22	23	23	20	21	21	22	19
		Hi PR	243	261	276	288	272	293	309	323	310	333	352	367	353	380	401	418	397	427	451	470	439	472	498	520
		LO PR	107	113	124	132	113	120	131	139	117	125	136	145	123	131	143	152	129	137	150	159	133	142	155	165
	MBh	180.3	183.8	192.5	205.4	176.1	179.6	188.1	200.6	172.0	175.3	183.6	195.8	167.8	171.0	179.1	191.1	159.4	162.5	170.1	181.5	147.6	150.5	157.6	168.1	
	S/T	0.94	0.90	0.82	0.66	0.97	0.94	0.85	0.69	1.00	0.96	0.87	0.70	1.00	0.99	0.89	0.73	1.00	1.00	0.93	0.75	1.00	1.00	0.94	0.76	
	6000	ΔT	26	25	24	21	26	26	24	21	26	26	24	21	26	26	25	21	24	25	24	21	23	23	23	20
		Hi PR	240	259	273	285	270	290	306	320	307	330	349	363	349	376	397	414	393	423	447	466	434	467	493	515
		LO PR	106	112	123	131	112	119	130	138	116	123	135	143	122	130	141	151	128	136	148	158	132	140	153	163
MBh		166.5	169.7	177.7	189.6	162.6	165.7	173.6	185.2	158.7	161.8	169.4	180.8	154.8	157.8	165.3	176.4	147.1	149.9	157.0	167.5	136.3	138.9	145.5	155.2	
S/T		0.90	0.87	0.79	0.64	0.94	0.90	0.81	0.66	0.96	0.93	0.84	0.68	0.99	0.96	0.86	0.70	1.00	0.99	0.90	0.73	1.00	1.00	0.90	0.73	
4800	ΔT	29	28	27	23	29	29	27	23	29	29	27	23	29	29	27	24	28	28	27	23	26	27	25	22	
	Hi PR	233	251	265	276	262	281	297	310	297	320	338	353	339	365	385	402	381	410	433	452	421	453	479	499	
	LO PR	102	109	119	127	108	115	126	134	112	120	131	139	118	126	137	146	124	132	144	153	128	136	149	158	

High and low pressures are measured at the liquid and suction access fittings.

Shaded area reflects AHRI (TVA) conditions

IDB: Entering Indoor Dry Bulb Temperature

EXPANDED COOLING DATA — 20 TONS

		OUTDOOR AMBIENT TEMPERATURE																																			
		65						75						85						95						105						115					
		ENTERING INDOOR WET BULB TEMPERATURE																																			
		IDB	AIRFLOW	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71						
70	7875	MBh	235.2	243.8	267.1	-	229.7	238.1	260.9	-	224.2	232.4	254.6	-	218.8	226.8	248.4	-	207.8	215.4	236.0	-	192.5	199.5	218.6	-											
		S/T	0.76	0.63	0.44	-	0.78	0.66	0.45	-	0.80	0.67	0.47	-	0.83	0.69	0.48	-	0.86	0.72	0.50	-	0.87	0.73	0.50	-											
		ΔT	21	18	14	-	21	18	14	-	21	18	14	-	21	18	14	-	21	18	14	-	20	17	13	-											
		HI PR	259	279	294	-	290	313	330	-	330	356	375	-	376	405	428	-	423	456	481	-	468	503	531	-											
		LO PR	100	106	116	-	105	112	122	-	110	117	127	-	115	122	134	-	121	128	140	-	125	133	145	-											
	7000	MBh	228.3	236.7	259.3	-	223.0	231.2	253.3	-	217.7	225.7	247.2	-	212.4	220.1	241.2	-	201.8	209.1	229.1	-	186.9	193.7	212.3	-											
		S/T	0.72	0.60	0.42	-	0.75	0.63	0.43	-	0.77	0.64	0.44	-	0.79	0.66	0.46	-	0.82	0.69	0.48	-	0.83	0.69	0.48	-											
		ΔT	22	19	14	-	22	19	14	-	22	19	14	-	22	19	15	-	22	19	14	-	20	18	13	-											
		HI PR	256	276	291	-	288	310	327	-	327	352	372	-	373	401	423	-	419	451	476	-	463	498	526	-											
		LO PR	99	105	115	-	104	111	121	-	108	115	126	-	114	121	132	-	119	127	139	-	123	131	143	-											
5600	MBh	210.7	218.4	239.3	-	205.8	213.4	233.8	-	200.9	208.3	228.2	-	196.0	203.2	222.6	-	186.2	193.0	211.5	-	172.5	178.8	195.9	-												
	S/T	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.76	0.64	0.44	-	0.79	0.66	0.46	-	0.80	0.67	0.46	-												
	ΔT	24	21	16	-	24	21	16	-	24	21	16	-	25	21	16	-	24	21	16	-	23	20	15	-												
	HI PR	249	268	283	-	279	300	317	-	317	341	361	-	361	389	411	-	407	438	462	-	449	483	510	-												
	LO PR	96	102	111	-	101	108	118	-	105	112	122	-	110	118	128	-	116	123	134	-	120	127	139	-												

75	AIRFLOW	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
	MBh	239.2	246.2	266.5	286.1	233.6	240.5	260.3	279.4	228.0	234.8	254.1	272.8	222.5	229.1	247.9	266.1	211.4	217.6	235.5	252.8	195.8	201.6	218.2	234.2
	S/T	0.86	0.77	0.58	0.37	0.89	0.80	0.60	0.39	0.91	0.82	0.62	0.40	0.94	0.84	0.64	0.41	0.98	0.88	0.66	0.43	0.99	0.88	0.67	0.43
	ΔT	24	22	18	13	24	22	18	13	24	22	18	13	25	23	19	13	24	22	18	13	23	21	17	12
	HI PR	262	281	297	310	293	316	333	348	334	359	379	396	380	409	432	451	428	460	486	507	472	508	537	560
7000	LO PR	101	107	117	125	106	113	124	132	111	118	129	137	116	124	135	144	122	130	141	151	126	134	146	156
	MBh	232.2	239.1	258.8	277.7	226.8	233.5	252.8	271.3	221.4	228.0	246.7	264.8	216.0	222.4	240.7	258.4	205.2	211.3	228.7	245.4	190.1	195.7	211.8	227.4
	S/T	0.82	0.73	0.56	0.36	0.85	0.76	0.58	0.37	0.87	0.78	0.59	0.38	0.90	0.81	0.61	0.39	0.93	0.84	0.63	0.41	0.94	0.84	0.64	0.41
	ΔT	25	23	19	13	25	23	19	13	25	23	19	13	26	24	19	13	25	23	19	13	24	22	18	12
	HI PR	259	279	294	307	291	313	330	344	330	356	376	392	376	405	428	446	423	456	481	502	468	503	532	554
5600	LO PR	100	106	116	123	105	112	122	130	110	117	127	136	115	122	134	142	121	128	140	149	125	133	145	154
	MBh	214.3	220.7	238.8	256.3	209.3	215.5	233.3	250.4	204.4	210.4	227.7	244.4	199.4	205.3	222.2	238.5	189.4	195.0	211.1	226.5	175.4	180.6	195.5	209.8
	S/T	0.79	0.71	0.54	0.34	0.82	0.73	0.56	0.36	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.90	0.81	0.61	0.39	0.91	0.81	0.62	0.40
	ΔT	28	26	21	15	28	26	21	15	28	26	21	15	28	26	21	15	28	26	21	15	26	24	20	14
	HI PR	251	270	285	298	282	303	320	334	321	345	364	380	365	393	415	433	411	442	467	487	454	488	516	538
5600	LO PR	97	103	112	120	102	109	119	126	106	113	123	131	112	119	130	138	117	124	136	145	121	129	141	150

IDB: Entering Indoor Dry Bulb Temperature

Shaded area reflects ACCA (TVA) conditions

High and low pressures are measured at the liquid and suction access fittings.

EXPANDED COOLING DATA — 20 TONS (CONT.)

		OUTDOOR AMBIENT TEMPERATURE																								
		65				75				85				95				105				115				
		ENTERING INDOOR WET BULB TEMPERATURE																								
IDB	AIRFLOW	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
80	7875	MBh	243.4	248.7	265.7	284.1	237.8	242.9	259.6	277.5	232.1	237.2	253.4	270.9	226.4	231.4	247.2	264.3	215.1	219.8	234.8	251.0	199.3	203.6	217.5	232.5
		S/T	0.94	0.89	0.72	0.54	1.00	0.92	0.75	0.56	1.00	0.94	0.77	0.57	1.00	1.00	0.79	0.59	1.00	1.00	0.82	0.61	1.00	1.00	0.83	0.62
		ΔT	27	26	22	18	28	26	23	18	27	26	23	18	26	27	23	18	25	26	22	18	23	24	21	17
		HI PR	264	284	300	313	296	319	337	351	337	363	383	400	384	413	436	455	432	465	491	512	477	514	542	566
	7000	LO PR	102	108	118	126	108	114	125	133	112	119	130	138	117	125	136	145	123	131	143	152	127	135	148	157
		MBh	236.3	241.5	258.0	275.8	230.8	235.9	252.0	269.4	225.3	230.3	246.0	263.0	219.8	224.6	240.0	256.6	208.8	213.4	228.0	243.7	193.5	197.7	211.2	225.8
		S/T	0.90	0.84	0.69	0.51	0.93	0.88	0.71	0.53	0.96	0.90	0.73	0.55	0.99	0.93	0.75	0.56	1.00	0.96	0.78	0.58	1.00	0.97	0.79	0.59
		ΔT	28	27	23	19	28	27	24	19	28	27	24	19	29	27	24	19	27	27	23	19	25	25	22	17
	5600	HI PR	262	281	297	310	293	316	334	348	334	359	379	396	380	409	432	451	428	460	486	507	473	509	537	560
		LO PR	101	107	117	125	106	113	124	132	111	118	129	137	116	124	135	144	122	130	141	151	126	134	146	156
		MBh	218.1	222.9	238.1	254.6	213.1	217.7	232.6	248.6	208.0	212.5	227.1	242.7	202.9	207.3	221.5	236.8	192.8	197.0	210.4	225.0	178.6	182.5	194.9	208.4
		S/T	0.87	0.81	0.66	0.50	0.90	0.84	0.69	0.51	0.92	0.87	0.70	0.53	0.95	0.89	0.73	0.54	0.99	0.93	0.75	0.56	1.00	0.93	0.76	0.57
	ΔT	31	30	26	21	31	30	26	21	32	30	26	21	32	30	26	21	31	30	26	21	29	28	24	19	
	HI PR	254	273	288	301	285	306	323	337	324	348	368	384	369	397	419	437	415	446	471	492	458	493	521	543	
	LO PR	98	104	114	121	103	110	120	128	107	114	125	133	113	120	131	139	118	126	137	146	122	130	142	151	

85	7875	MBh	247.7	252.5	264.4	282.1	241.9	246.6	258.3	275.5	236.2	240.7	252.1	269.0	230.4	234.8	246.0	262.4	218.9	223.1	233.7	249.3	202.7	206.7	216.4	230.9
		S/T	0.99	0.96	0.86	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.92	0.74	1.00	1.00	0.95	0.77	1.00	1.00	0.98	0.80	1.00	1.00	0.99	0.80
		ΔT	29	28	27	23	28	28	27	23	28	28	27	23	27	27	27	24	26	26	27	23	24	24	25	22
		HI PR	267	287	303	316	299	322	340	355	340	366	387	404	388	417	441	460	436	469	496	517	482	519	548	571
	7000	LO PR	103	109	119	127	109	116	126	134	113	120	131	140	119	126	138	147	124	132	144	154	129	137	149	159
		MBh	240.5	245.1	256.7	273.9	234.9	239.4	250.7	267.5	229.3	233.7	244.8	261.1	223.7	228.0	238.8	254.8	212.5	216.6	226.9	242.0	196.8	200.6	210.1	224.2
		S/T	0.94	0.91	0.82	0.67	0.98	0.94	0.85	0.69	1.00	0.97	0.87	0.71	1.00	1.00	0.90	0.73	1.00	1.00	0.94	0.76	1.00	1.00	0.94	0.77
		ΔT	30	29	28	24	30	30	28	24	30	30	28	24	29	30	28	24	28	28	28	24	26	26	26	23
	5600	HI PR	264	284	300	313	296	319	337	351	337	363	383	400	384	413	436	455	432	465	491	512	477	514	542	566
		LO PR	102	108	118	126	108	114	125	133	112	119	130	138	117	125	136	145	123	131	143	152	127	135	148	157
		MBh	221.9	226.2	236.9	252.8	216.8	221.0	231.4	246.9	211.6	215.7	225.9	241.0	206.5	210.5	220.4	235.1	196.1	199.9	209.4	223.4	181.7	185.2	194.0	206.9
		S/T	0.91	0.88	0.79	0.64	0.94	0.91	0.82	0.67	0.97	0.93	0.84	0.68	1.00	0.96	0.87	0.71	1.00	1.00	0.90	0.73	1.00	1.00	0.91	0.74
		ΔT	33	33	31	27	34	33	31	27	34	33	31	27	34	33	31	27	32	33	31	27	30	30	29	25
		HI PR	256	276	291	304	288	309	327	341	327	352	372	388	372	401	423	441	419	451	476	497	463	498	526	549
		LO PR	99	105	115	122	104	111	121	129	108	115	126	134	114	121	132	141	119	127	139	148	123	131	143	153

IDB: Entering Indoor Dry Bulb Temperature

Shaded area reflects AHRI (TVA) conditions

High and low pressures are measured at the liquid and suction access fittings.

HEAT KIT ELECTRICAL DATA (BLOWER ONLY, HEAT MODE) — 15 TONS

THREE-PHASE UNITS @ 208 / 240V

MODEL	MCA ¹	MOP ² (AMPS)	KW & BTU/H	RECOMMENDED AIRFLOW RANGE
CPC180XXX3BXXX	78	100		
EHK3-31	98	150	28.8	5250 - 6750 CFM
EHK3-46	141	200	43.2	5250 - 6750 CFM
EHK3-60	185	225	57.6	5250 - 6750 CFM

480-VOLT UNITS @ 480V

MODEL	MCA ¹	MOP ² (AMPS)	KW & BTU/H	RECOMMENDED AIRFLOW RANGE
CPC180XXX4BXXX	39	50		
EHK4-31	49	80	28.8	5250 - 6750 CFM
EHK4-46	71	100	43.2	5250 - 6750 CFM
EHK4-60	92	110	57.6	5250 - 6750 CFM

575-VOLT UNITS @ 575V

MODEL	MCA ¹	MOP ² (AMPS)	KW & BTU/H	RECOMMENDED AIRFLOW RANGE
CPC180XXX7BXXX	31	40		
EHK7-31	41	70	28.8	5250 - 6750 CFM
EHK7-46	59	80	43.2	5250 - 6750 CFM
EHK7-60	78	100	57.6	5250 - 6750 CFM

¹ Maximum Circuit Ampacity

² Maximum Overcurrent Protection

Note: When using electric heat kit, the single-point kit installed in the unit is required to meet UL requirements.

KW CORRECTION FACTORS

KW CORRECTION FACTOR					
SUPPLY VOLTAGE	240	230	220	210	208
CORRECTION FACTOR	1	0.93	0.82	0.78	0.76

KW CORRECTION FACTOR (FOR 480V UNITS)			
SUPPLY VOLTAGE	460	440	430
CORRECTION FACTOR	0.92	0.84	0.8

For other voltage, use $\text{voltage}^2 / 480^2$

KW CORRECTION FACTOR (FOR 575V UNITS)			
SUPPLY VOLTAGE	560	550	540
CORRECTION FACTOR	0.95	0.91	0.88

Multiply rated kW by correction factor to get actual kW.

HEAT KIT ELECTRICAL DATA (BLOWER ONLY, HEAT MODE) — 20 TONS

MODEL & HEAT KIT USAGE	MCA ¹ AT 208 / 240V	MOP ² (AMPS) AT 208 / 240V	ACTUAL kW AT 240V	RECOMMENDED AIRFLOW RANGE
CPC240***3B***	95	125		
EHK3-31	103	175	28.8	7200 - 8500 CFM
EHK3-46	146	225	43.2	7200 - 8500 CFM
EHK3-60	189	250	57.6	7200 - 8500 CFM
EHK3-75	232	250	72	7200 - 8500 CFM

MODEL & HEAT KIT USAGE	MCA AT 480V ¹	MOP (AMPS) AT 480V ²	ACTUAL kW AT 480V	RECOMMENDED AIRFLOW RANGE
CPC240***4B***	50	60		
EHK4-31	51	100	28.8	7200 - 8500 CFM
EHK4-46	73	110	43.2	7200 - 8500 CFM
EHK4-60	95	125	57.6	7200 - 8500 CFM
EHK4-75	116	150	72	7200 - 8500 CFM

MODEL & HEAT KIT USAGE	MCA ¹ AT 575V	MOP ² (AMPS) AT 575V	ACTUAL kW AT 575V	RECOMMENDED AIRFLOW RANGE
CPC240***7B***	37	45		
EHK7-31	43	70	28.8	7200 - 8500 CFM
EHK7-46	61	90	43.2	7200 - 8500 CFM
EHK7-60	79	100	57.6	7200 - 8500 CFM
EHK7-75	97	110	72	7200 - 8500 CFM

¹ Maximum Circuit Ampacity

² Maximum Overcurrent Protection

Note: When using electric heat kit, the single-point kit installed in the unit is required to meet UL requirements.

KW CORRECTION FACTORS

kW CORRECTION FACTOR					
SUPPLY VOLTAGE	240	230	220	210	208
CORRECTION FACTOR	1	0.93	0.82	0.78	0.76

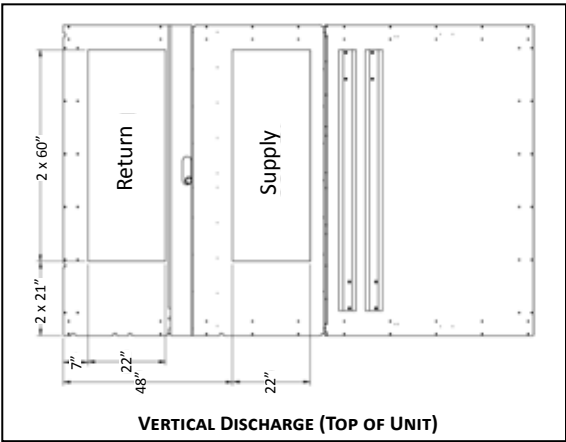
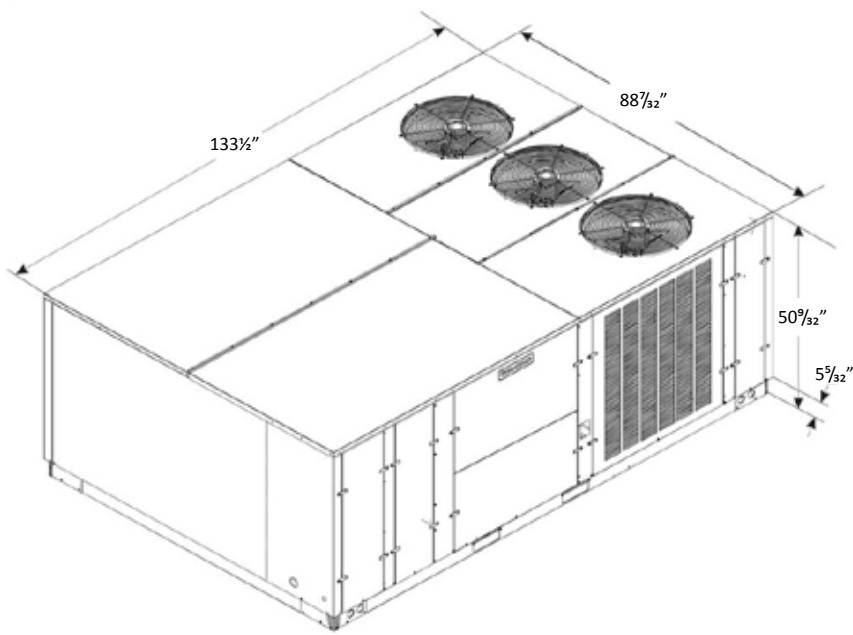
kW CORRECTION FACTOR (FOR 480V UNITS)			
SUPPLY VOLTAGE	460	440	430
CORRECTION FACTOR	0.92	0.84	0.8

For other voltage, use $\text{voltage}^2 / 480^2$

kW CORRECTION FACTOR (FOR 575V UNITS)			
SUPPLY VOLTAGE	560	550	540
CORRECTION FACTOR	0.95	0.91	0.88

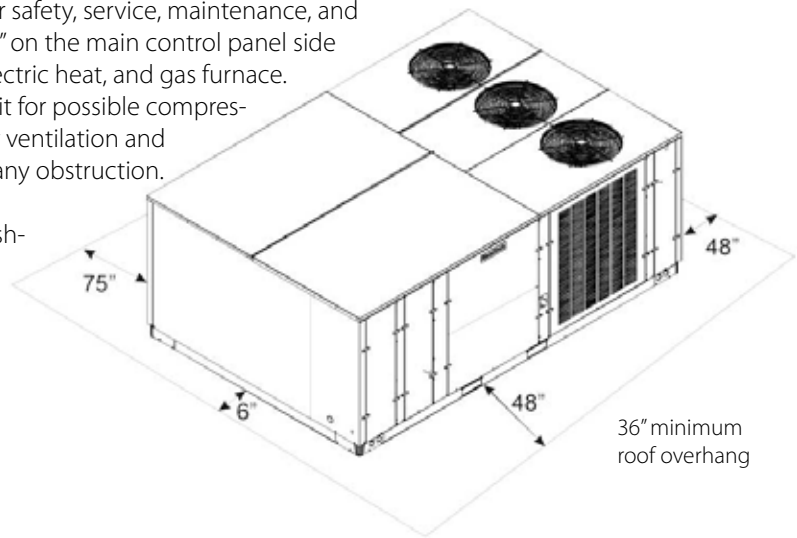
Multiply rated kW by correction factor to get actual kW.

DIMENSIONS

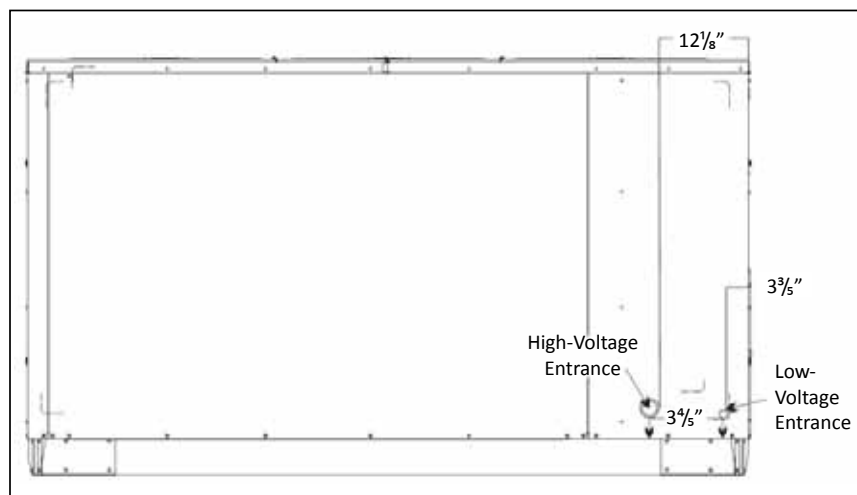


UNIT CLEARANCES

Maintain an adequate clearance around the unit for safety, service, maintenance, and proper unit operation. Leave a total clearance of 75" on the main control panel side of the unit for possible removal of fan shaft, coil, electric heat, and gas furnace. Leave a clearance of 48" on all other sides of the unit for possible compressor removal or service access, and to ensure proper ventilation and condenser airflow. Do not install the unit beneath any obstruction. Install the unit away from all building exhausts to inhibit ingestion of exhaust air into the unit's fresh-air intake.



ELECTRICAL ENTRANCE LOCATIONS



ROOF CURB INSTALLATION — RIGGING

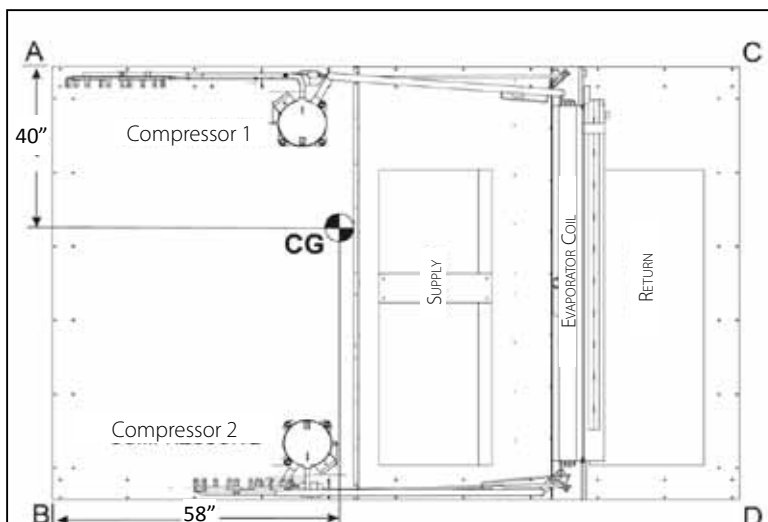
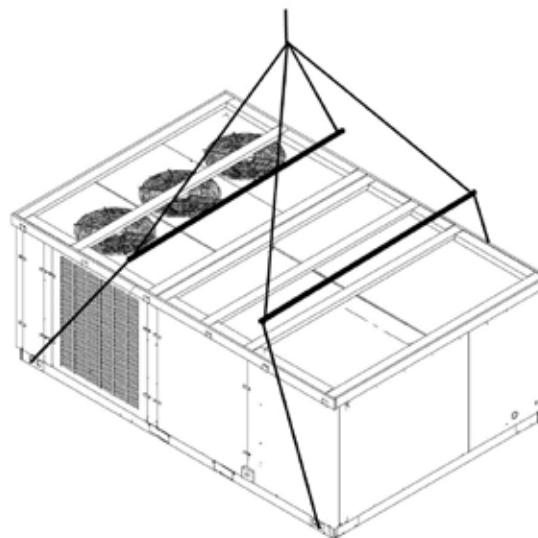
Provisions for forks have been included in the unit base frame. No other fork locations are approved.

- Unit must be lifted by the four lifting holes located at the base frame corners.
- Lifting cables should be attached to the unit with shackles.
- The distance between the crane hook and the top of the unit must not be less than 60".
- Two spreader bars must span over the unit to prevent damage to the cabinet by the lift cables. Spreader bars must be of sufficient length so that cables do not come in contact with the unit during transport. Remove wood struts mounted beneath unit base frame before setting unit on roof curb. These struts are intended to protect unit base frame from fork lift damage. To remove the struts, extract the sheet metal retainers and pull the struts through the base of the unit. Refer to rigging label on the unit.

Important: If using bottom discharge with roof curb, duct-work should be attached to the curb prior to installing the unit. Duct-work dimensions are shown in Roof Curb Installation Instructions Manual.

Refer to the Roof Curb Installation Instructions for proper curb installation. Curbing must be installed in compliance with the National Roofing Contractors Association Manual.

Lower unit carefully onto roof mounting curb. While rigging the unit, the center of gravity will cause the condenser end to be lower than the supply air end. Bring condenser end of unit into alignment with the curb. With condenser end of the unit resting on curb member and using curb as a fulcrum, lower opposite end of the unit until entire unit is seated on the curb. When a rectangular cantilever curb is used, take care to center the unit. Check for proper alignment and orientation of supply and return openings with duct.



CORNER & CENTER-OF-GRAVITY LOCATIONS

15-TON UNITS	WEIGHTS (LBS.)
Corner Weight A	580
Corner Weight B	540
Corner Weight C	475
Corner Weight D	440
Shipping Weight	2150
Operating Weight	2035

20-TON UNITS	WEIGHTS (LBS.)
Corner Weight A	655
Corner Weight B	535
Corner Weight C	510
Corner Weight D	420
Shipping Weight	2235
Operating Weight	2120

To assist in determining rigging requirements, unit weights are shown to the right.

Note: These weights are calculated without installed accessories.

ROOF CURB INSTALLATION

Curb installations must comply with local codes and should follow the established guidelines of the National Roofing Contractors Association.

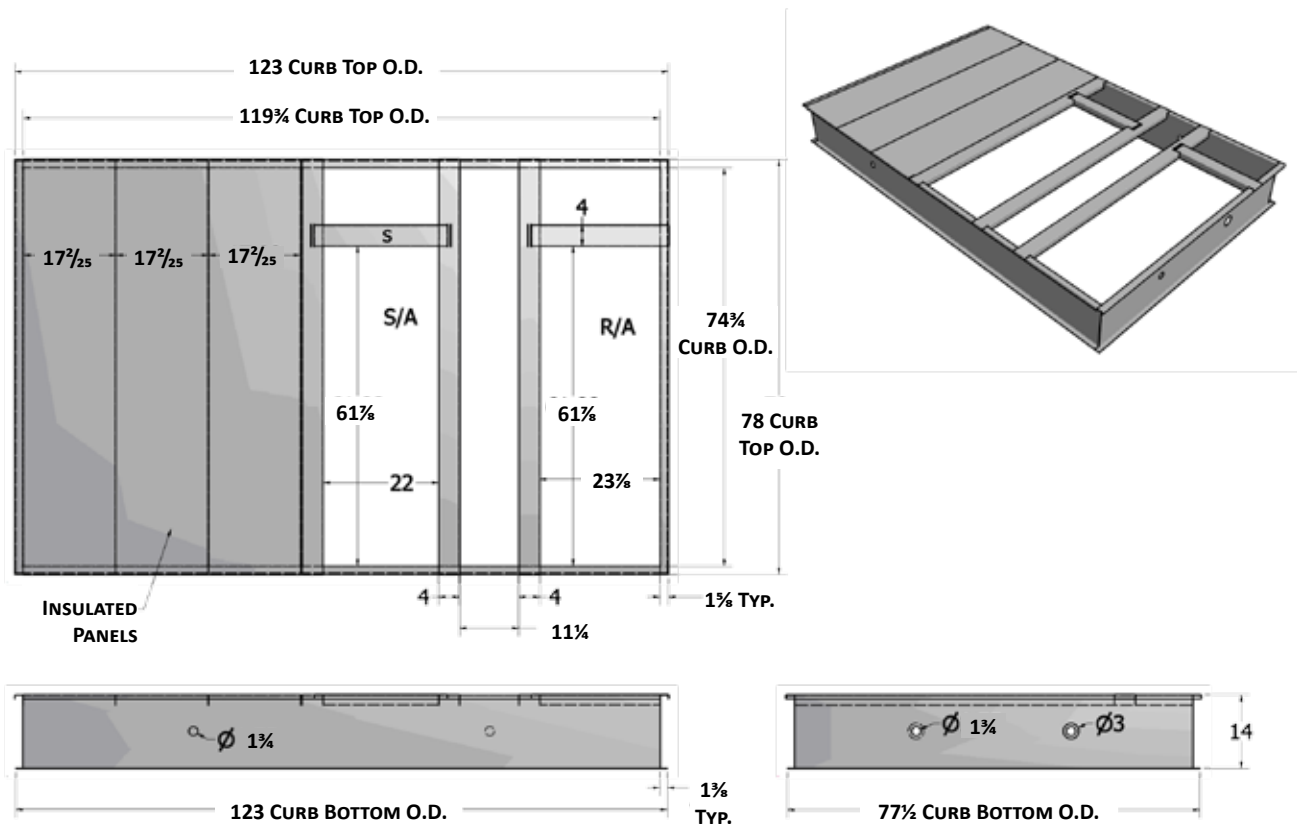
Proper unit installation requires that the roof curb be firmly and permanently attached to the roof structure. Check for adequate fastening method prior to setting the unit on the curb.

Full perimeter roof curbs are available from the factory and are shipped unassembled. The installing contractor is responsible for field assembly, squaring, leveling, and mounting on the roof structure. All required hardware necessary for the assembly of the sheet metal curb is included in the curb accessory package.

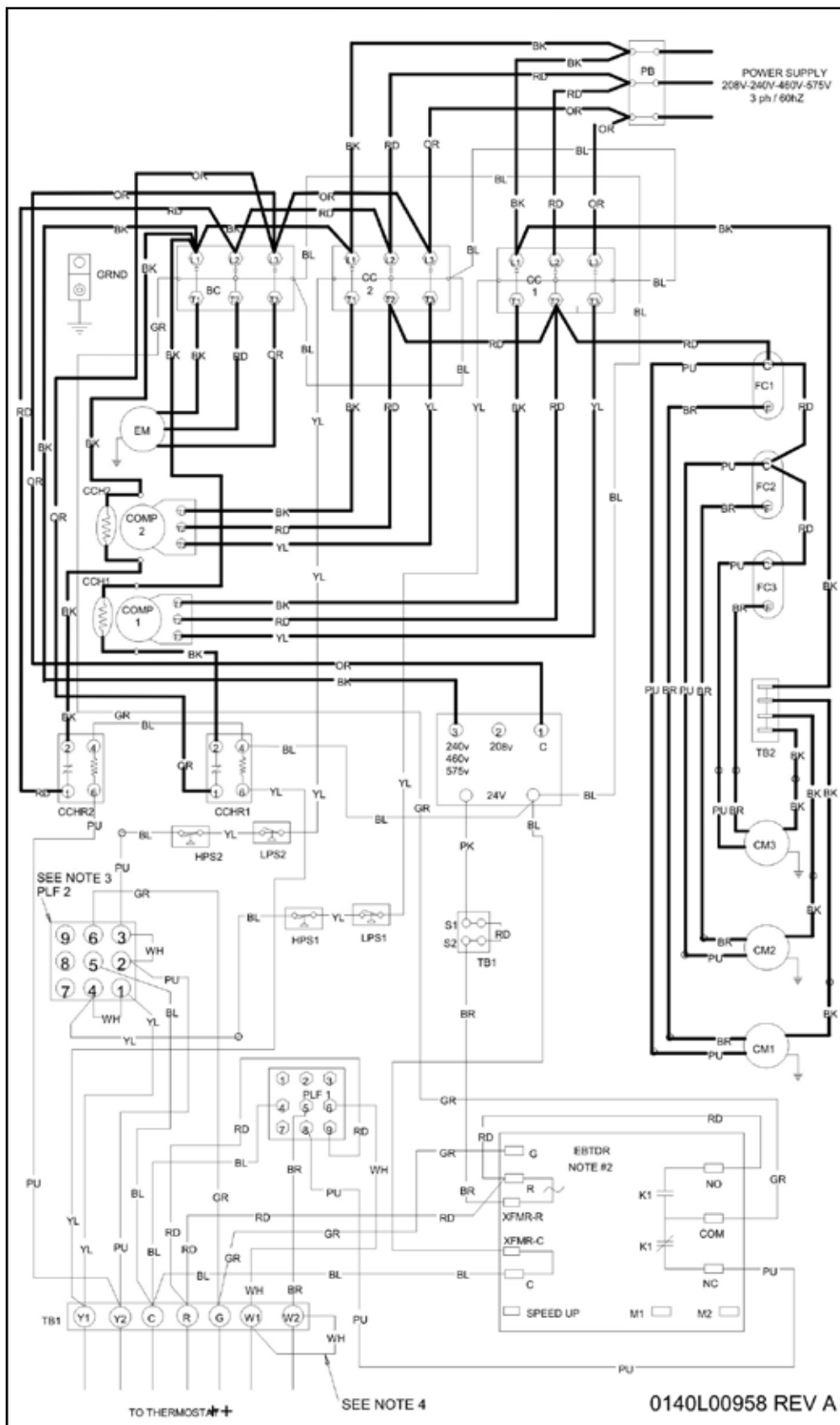
- Determine sufficient structural support before locating and mounting the curb and package unit.
- Duct-work must be constructed using industry guidelines. The duct-work must be placed into the roof curb before mounting the package unit. Our full perimeter curbs include duct connection frames to be assembled with the curb. Cantilevered-type curbs are not available from the factory.
- Contractor furnishes curb insulation, cant strips, flashing, and general roofing material.
- Support curbs on parallel sides with roof members. To prevent damage to the unit, the roof members cannot penetrate supply and return duct openings.

Note: The unit and curb accessories are designed to allow vertical duct installation before unit placement. Duct installation after unit placement is not recommended.

See the manual shipped with the roof curb for assembly and installation instructions.



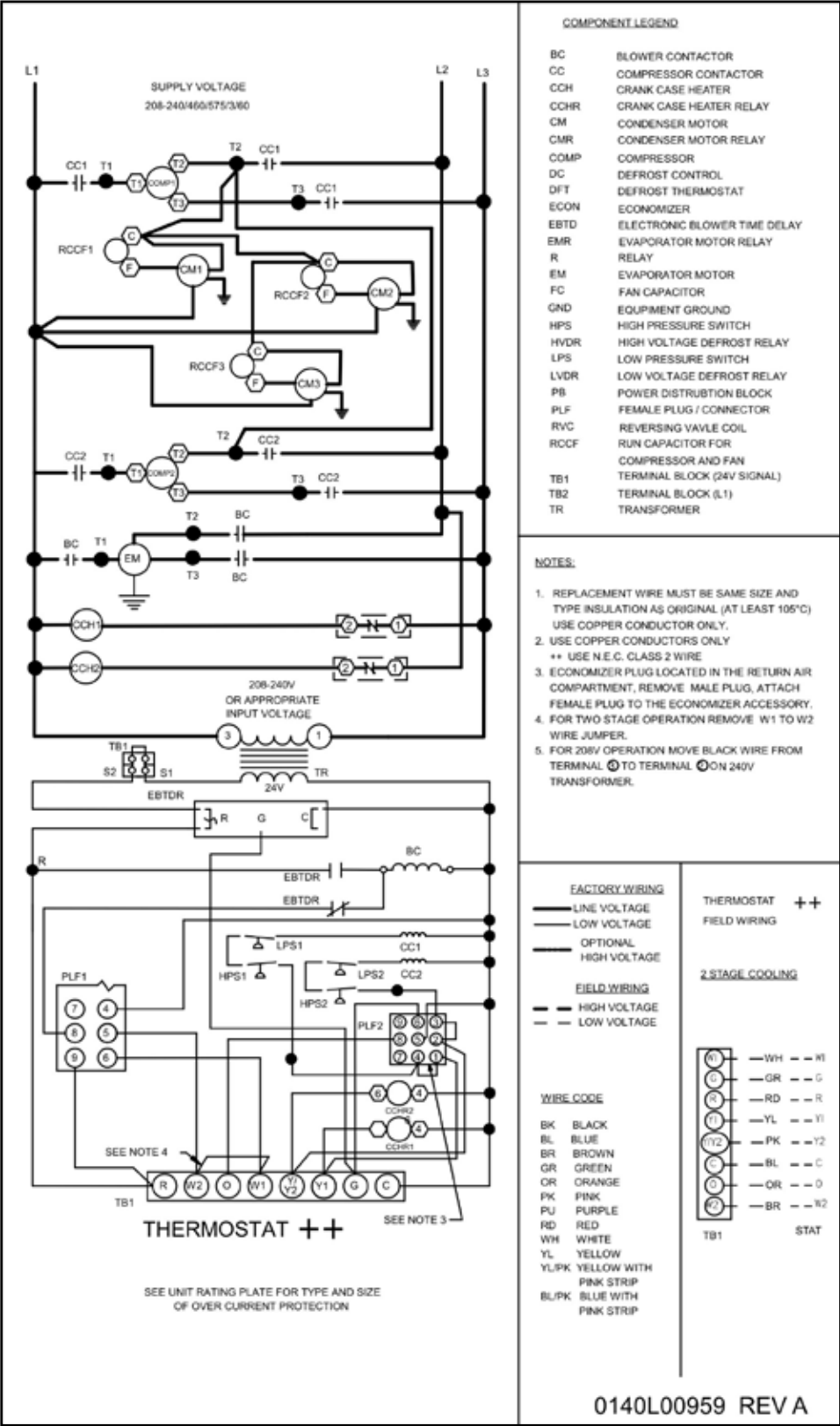
WIRING DIAGRAM — CPC180/240***3B/ 4B/ 7B***



	WARNING	High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.	
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Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

WIRING DIAGRAM — CPC180/240***3B/ 4B/ 7B***



High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

WARNING

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

ACCESSORIES

ITEM #	DESCRIPTION	FITS MODEL SIZES
14CURB180240	Roof Curb 14" Tall	15-20 tons
25FD180240	25% Manual Fresh Air Damper	15-20 tons
25MFD180240	25% Motorized Fresh Air Damper	15-20 tons
CDK180	Concentric Duct Kit	15 tons
CDK240	Concentric Duct Kit	20 tons
DNECONGS180240	Downflow Economizer	15-20 tons
GHRC-1	Hurricane Restraint Clip	All Models
HSKT180	High-Static Kit	15 tons
HSKT240	High-Static Kit	20 tons
HZCURB180240ED	Horizontal Discharge Curb — End Discharge	15-20 tons
HZCURB180240SD	Horizontal Discharge Curb — Side Discharge; duct openings on service side	15-20 tons
HZCURB180240SDA	Horizontal Discharge Curb — Side Discharge; duct openings on non-service side	15-20 tons
LAKT03	Low-Ambient Kit	15-20 tons
PE1802402	Power Exhaust 208/230v	15-20 tons
PE1802404	Power Exhaust 460v	15-20 tons

