Goodman®
Air Conditioning & Heating

Product Specifications

CE Commercial

Split System Air Conditioner

The CE Commercial 10-ton split system air conditioner features the unique Goodman® sound control top design for quiet operation and is designed for ground-level or rooftop mount application.

50 Hz, 10-Ton

Nominal Cooling Capacity:
120,000 BTU/h [35.2 kW]

Standard Features

- Single-scroll compressor with crankcase heater
- Quiet operating top discharge
- Permanently lubricated condenser motor
- Copper tube/aluminum fin coil
- Brass suction ball valve and liquid front-seating shut-off valve with sweat connections
- Large-capacity liquid line filter dryer
- High- and low-pressure switches
- Contactor with lug connections
- Ground lug connection
- ETL Listed

Cabinet Features

- Unique Goodman® sound control top design
- Steel louver coil guard protects the coil from damage and adds strength to unit
- Bottom pan rails elevate unit above slab
- Heavy-gauge galvanized-steel cabinet
- Attractive Architectural Gray powder-paint finish with 500-hour salt-spray approval
- When properly anchored, meets the 2001 Florida Building Code unit integrity requirements for hurricane-type winds

NOMENCLATURE

C	E	120	3	AA
1	2	3,4,5	6	7,8

Product Category

C Split System

Unit Type

E Commercial Air Conditioner
K Air Conditioner
P Heat Pump

Nominal Capacity

018	1½ Tons	048	4 Tons
024	2 Tons	060	5 Tons
030	2½ Tons	090	7½ tons
036	3 Tons	120	10 Tons
042	3½ Tons		

Electrical

1 208/230 V, 1 Phase, 60 Hz
2 220/240 V, 1 Phase, 50 Hz
3 208/230 V, 3 Phase, 60 Hz
4 460 V, 3 Phase, 60 Hz
5 380/415 V, 3 Phase, 50 Hz

Engineering

Major/ Minor Revisions

Specifications

Capacities	CE120-5
Nominal Cooling (BTU/h)	114,000
EER[1]	9.0
Decibels	84
Compressor	
RLA / LRA	17.2 / 118
Volts	380-420
Condenser Fan Motor	
Horsepower / FLA	1 / 2
Volts	380
Refrigeration System	
Liquid Valve Size (“O.D.)	⅝”
Suction Valve Size (“O.D.)	1⅛”
Valve Type	Sweat
Refrigerant Charge	32

Condenser Fan / Coil	CE120-5
Horsepower - RPM	1-930
Fan Diameter/ # Fan Blades	26/3
Outdoor Nominal CFM	4,400
Face Area (ft²)	29.4
Rows Deep/ Fins per Inch	1/22
Fin Type	Ripple
Coil No. of Tubes	40
Coil Tube Diameter	⅜”
Electrical Data	
Voltage-Hz / Phase	380/415-50/3
Min. Circuit Ampacity[2]	23.6
Max. Overcurrent Protection[3]	40 amps
Min / Max Volts	342/456
Power Supply Conduit Size	½” or ¾”
Ship Weight (lbs-[kg])	296 [134]

[1] Energy Efficiency Ratio

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

[3] 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.

Performance Ratings

Outdoor Unit	Indoor Unit	Cooling Capacity				dBs
		Total BTU/h	Sensible BTU/h	EER[1]	kWI[2]	
CE120-5	AR-120-2	114,000	83,000	9.0	12.67	84
	(2) CA*F4860*6*	114,000	83,000	9.0	12.67	

[1] Energy Efficiency Ratio

[2] kWI = Compressor + Indoor Blower + Outdoor Fan Watts

Expanded Performance Ratings — CE120-5 / AR120-00-5

			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	4388	MBh	111.7	115.8	126.9	-	109.1	113.1	123.9	-	106.5	110.4	121.0	-	103.9	107.7	118.0	-	98.7	102.3	112.1	-	91.4	94.8	103.8	-
		S/T	0.73	0.61	0.42	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.80	0.67	0.46	-	0.83	0.70	0.48	-	0.84	0.70	0.49	-
		ΔT	17	15	11	-	17	15	11	-	17	15	11	-	17	15	11	-	17	15	11	-	16	14	11	-
		kW	9.84	10.05	10.36	-	10.59	10.82	11.16	-	11.25	11.50	11.87	-	11.84	12.10	12.49	-	12.33	12.61	13.02	-	12.76	13.05	13.48	-
		Amps	15.6	16.0	16.4	-	16.7	17.0	17.5	-	17.9	18.3	18.8	-	18.9	19.3	19.9	-	20.0	20.4	21.0	-	21.0	21.5	22.1	-
		HI PR	138	148	157	-	155	166	176	-	176	189	200	-	200	216	228	-	225	243	256	-	249	268	283	-
		LO PR	59	63	69	-	62	66	73	-	65	69	75	-	68	73	79	-	71	76	83	-	74	79	86	-
	3900	MBh	108.5	112.4	123.2	-	105.9	109.8	120.3	-	103.4	107.2	117.4	-	100.9	104.6	114.6	-	95.8	99.3	108.8	-	88.8	92.0	100.8	-
		S/T	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.79	0.66	0.46	-	0.80	0.67	0.46	-
		ΔT	18	15	12	-	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	17	15	11	-
		kW	9.77	9.97	10.28	-	10.51	10.73	11.07	-	11.16	11.41	11.77	-	11.74	12.00	12.39	-	12.23	12.50	12.91	-	12.66	12.94	13.37	-
		Amps	15.5	15.8	16.3	-	16.6	16.9	17.4	-	17.8	18.1	18.6	-	18.8	19.2	19.7	-	19.8	20.2	20.8	-	20.8	21.3	21.9	-
		HI PR	136	147	155	-	153	165	174	-	174	187	198	-	198	213	225	-	223	240	254	-	247	265	280	-
		LO PR	59	62	68	-	62	66	72	-	64	68	75	-	68	72	78	-	71	75	82	-	73	78	85	-
	3413	MBh	100.1	103.8	113.7	-	97.8	101.3	111.0	-	95.4	98.9	108.4	-	93.1	96.5	105.7	-	88.5	91.7	100.5	-	81.9	84.9	93.1	-
		S/T	0.67	0.56	0.39	-	0.70	0.58	0.40	-	0.71	0.60	0.41	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.77	0.64	0.45	-
		ΔT	18	16	12	-	18	16	12	-	18	16	12	-	19	16	12	-	18	16	12	-	17	15	11	-
		kW	9.54	9.73	10.04	-	10.26	10.47	10.80	-	10.89	11.13	11.48	-	11.45	11.70	12.08	-	11.93	12.19	12.59	-	12.34	12.61	13.03	-
		Amps	15.2	15.5	15.9	-	16.2	16.5	17.0	-	17.3	17.7	18.2	-	18.3	18.7	19.3	-	19.3	19.8	20.3	-	20.3	20.8	21.4	-
		HI PR	132	142	150	-	149	160	169	-	169	182	192	-	192	207	219	-	216	233	246	-	239	257	272	-
		LO PR	57	60	66	-	60	64	70	-	62	66	72	-	65	70	76	-	69	73	80	-	71	76	82	-
75	4388	MBh	113.6	117.0	126.6	135.9	111.0	114.2	123.7	132.7	108.3	111.5	120.7	129.6	105.7	108.8	117.8	126.4	100.4	103.4	111.9	120.1	93.0	95.7	103.6	111.2
		S/T	0.83	0.74	0.56	0.36	0.86	0.77	0.58	0.38	0.88	0.79	0.60	0.38	0.91	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.95	0.85	0.65	0.42
		ΔT	20	18	15	10	20	18	15	10	20	18	15	10	20	19	15	11	20	18	15	10	19	17	14	10
		kW	9.92	10.13	10.45	10.78	10.68	10.91	11.26	11.62	11.35	11.59	11.97	12.36	11.94	12.20	12.60	13.02	12.44	12.72	13.13	13.58	12.87	13.16	13.60	14.06
		Amps	15.8	16.1	16.5	17.0	16.8	17.2	17.6	18.2	18.0	18.4	18.9	19.5	19.1	19.5	20.0	20.7	20.1	20.6	21.2	21.9	21.2	21.6	22.3	23.0
		HI PR	139	150	158	165	156	168	178	185	178	191	202	211	202	218	230	240	228	245	259	270	252	271	286	298
		LO PR	60	64	69	74	63	67	73	78	66	70	76	81	69	73	80	85	72	77	84	89	75	79	87	92
	3900	MBh	110.3	113.6	122.9	131.9	107.7	110.9	120.1	128.9	105.2	108.3	117.2	125.8	102.6	105.6	114.3	122.7	97.5	100.4	108.6	116.6	90.3	93.0	100.6	108.0
		S/T	0.79	0.71	0.54	0.35	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	21	19	16	11	21	19	16	11	21	19	16	11	21	19	16	11	21	19	16	11	19	18	15	10
		kW	9.84	10.05	10.36	10.69	10.59	10.82	11.16	11.53	11.26	11.50	11.87	12.26	11.84	12.10	12.50	12.91	12.34	12.61	13.03	13.46	12.77	13.05	13.48	13.94
		Amps	15.6	16.0	16.4	16.9	16.7	17.0	17.5	18.0	17.9	18.3	18.8	19.4	18.9	19.3	19.9	20.5	20.0	20.4	21.0	21.7	21.0	21.5	22.1	22.8
		HI PR	138	148	157	163	155	166	176	183	176	189	200	209	200	216	228	237	225	243	256	267	249	268	283	295
		LO PR	59	63	69	73	62	66	73	77	65	69	75	80	68	73	79	84	71	76	83	88	74	79	86	91
	3413	MBh	101.8	104.8	113.5	121.8	99.4	102.4	110.8	118.9	97.1	99.9	108.2	116.1	94.7	97.5	105.5	113.3	90.0	92.6	100.3	107.6	83.3	85.8	92.9	99.7
		S/T	0.76	0.68	0.52	0.33	0.79	0.71	0.54	0.35	0.81	0.73	0.55	0.35	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.88	0.78	0.59	0.38
		ΔT	21	19	16	11	21	20	16	11	21	20	16	11	21	20	16	11	21	19	16	11	20	18	15	10
		kW	9.61	9.81	10.12	10.44	10.34	10.56	10.89	11.24	10.98	11.22	11.58	11.96	11.55	11.80	12.18	12.59	12.03	12.29	12.70	13.12	12.45	12.72	13.14	13.58
		Amps	15.3	15.6	16.0	16.5	16.3	16.6	17.1	17.6	17.5	17.8	18.3	18.9	18.5	18.9	19.4	20.0	19.5	19.9	20.5	21.2	20.5	20.9	21.6	22.3
		HI PR	134	144	152	158	150	161	171	178	171	184	194	202	194	209	221	230	219	235	248	259	242	260	275	286
		LO PR	57	61	67	71	61	64	70	75	63	67	73	78	66	70	77	82	69	74	81	86	72	76	83	89

IDB = Entering Indoor Dry Bulb Temperature

Shaded area is ACCA (TVA) conditions

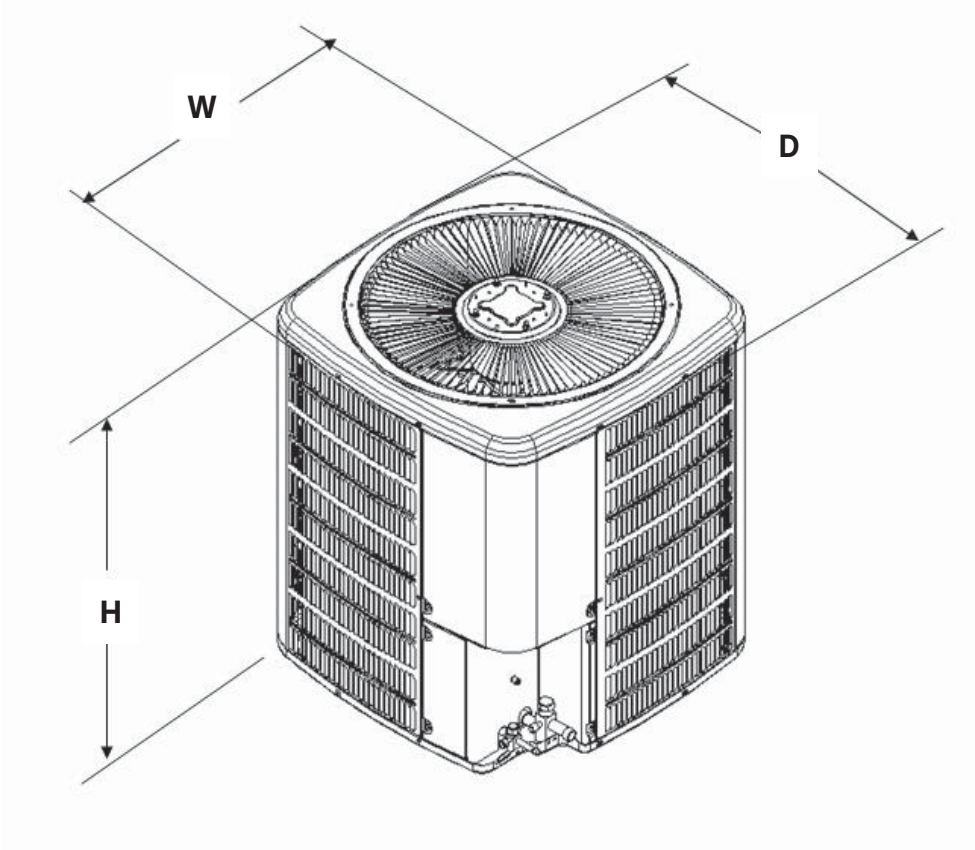
Expanded Performance Ratings— CE120-5 / AR120-00-5 (cont.)

			Outdoor Ambient Temperature																							
			65				75				85				95				105				115			
			Entering Indoor Wet Bulb Temperature																							
IDB			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	4388	MBh	115.6	118.1	126.2	134.9	112.9	115.4	123.3	131.8	110.2	112.7	120.4	128.7	107.6	109.9	117.4	125.5	102.2	104.4	111.5	119.2	94.6	96.7	103.3	110.5
		S/T	0.91	0.86	0.70	0.52	0.94	0.89	0.72	0.54	0.97	0.91	0.74	0.55	1.00	0.94	0.76	0.57	1.00	1.00	0.79	0.59	1.00	1.00	0.80	0.60
		Δ T	22	21	18	15	22	21	19	15	22	21	19	15	23	22	19	15	21	22	19	15	20	20	17	14
		kW	10.00	10.21	10.53	10.87	10.76	11.00	11.35	11.72	11.44	11.69	12.07	12.47	12.04	12.30	12.71	13.13	12.54	12.82	13.25	13.69	12.98	13.27	13.71	14.18
		Amps	15.9	16.2	16.6	17.2	16.9	17.3	17.8	18.3	18.2	18.6	19.1	19.7	19.2	19.6	20.2	20.9	20.3	20.7	21.3	22.1	21.4	21.8	22.5	23.2
		HI PR	141	151	160	167	158	170	179	187	179	193	204	213	204	220	232	242	230	247	261	273	254	273	289	301
		LO PR	60	64	70	75	64	68	74	79	66	70	77	82	70	74	81	86	73	78	85	90	75	80	88	93
	3900	MBh	112.3	114.7	122.6	131.0	109.6	112.0	119.7	128.0	107.0	109.4	116.9	124.9	104.4	106.7	**114.0**	121.9	99.2	101.4	108.3	115.8	91.9	93.9	100.3	107.2
		S/T	0.87	0.82	0.66	0.50	0.90	0.85	0.69	0.51	0.92	0.87	0.71	0.53	0.95	0.89	**0.73**	0.54	0.99	0.93	0.76	0.56	1.00	0.94	0.76	0.57
		Δ T	23	22	19	15	23	22	19	16	23	22	19	16	23	23	**20**	16	23	22	19	15	22	21	18	14
		kW	9.92	10.13	10.45	10.78	10.68	10.91	11.26	11.62	11.35	11.59	11.97	12.36	11.94	12.20	**12.60**	13.02	12.44	12.72	13.14	13.58	12.87	13.16	13.60	14.06
		Amps	15.8	16.1	16.5	17.0	16.8	17.2	17.6	18.2	18.0	18.4	18.9	19.5	19.1	19.5	**20.1**	20.7	20.1	20.6	21.2	21.9	21.2	21.6	22.3	23.0
		HI PR	139	150	158	165	156	168	178	185	178	191	202	211	202	218	**230**	240	228	245	259	270	252	271	286	298
		LO PR	60	64	69	74	63	67	73	78	66	70	76	81	69	73	**80**	85	72	77	84	89	75	79	87	92
	3413	MBh	103.6	105.9	113.1	120.9	101.2	103.4	110.5	118.1	98.8	100.9	107.9	115.3	96.4	98.5	105.2	112.5	91.6	93.6	100.0	106.9	84.8	86.7	92.6	99.0
		S/T	0.84	0.79	0.64	0.48	0.87	0.81	0.66	0.50	0.89	0.84	0.68	0.51	0.92	0.86	0.70	0.52	0.95	0.90	0.73	0.54	0.96	0.90	0.73	0.55
		Δ T	23	22	20	16	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	22	21	18	15
		kW	9.69	9.89	10.20	10.52	10.42	10.64	10.98	11.34	11.07	11.31	11.67	12.06	11.64	11.90	12.29	12.69	12.13	12.40	12.80	13.23	12.55	12.83	13.25	13.70
		Amps	15.4	15.7	16.1	16.6	16.4	16.8	17.2	17.8	17.6	18.0	18.5	19.1	18.6	19.0	19.6	20.2	19.7	20.1	20.7	21.3	20.7	21.1	21.7	22.5
		HI PR	135	145	153	160	152	163	172	180	172	186	196	204	196	211	223	233	221	238	251	262	244	263	277	289
		LO PR	58	62	67	72	61	65	71	76	64	68	74	79	67	71	78	83	70	74	81	87	72	77	84	90
85	4388	MBh	117.6	119.9	125.6	134.0	114.9	117.1	122.7	130.9	112.2	114.3	119.8	127.8	109.4	111.6	116.8	124.6	104.0	106.0	111.0	118.4	96.3	98.2	102.8	109.7
		S/T	0.96	0.92	0.83	0.68	0.99	0.96	0.86	0.70	1.00	0.98	0.88	0.72	1.00	1.00	0.91	0.74	1.00	1.00	0.95	0.77	1.00	1.00	0.96	0.78
		Δ T	24	23	22	19	24	23	22	19	24	23	22	19	23	23	22	19	22	22	22	19	20	21	21	18
		kW	10.08	10.29	10.62	10.96	10.85	11.09	11.44	11.81	11.53	11.79	12.17	12.57	12.14	12.40	12.81	13.24	12.65	12.93	13.36	13.81	13.09	13.38	13.83	14.30
		Amps	16.0	16.3	16.8	17.3	17.1	17.4	17.9	18.5	18.3	18.7	19.2	19.9	19.4	19.8	20.4	21.0	20.5	20.9	21.5	22.2	21.5	22.0	22.6	23.4
		HI PR	142	153	161	168	159	172	181	189	181	195	206	215	206	222	235	245	232	250	264	275	257	276	292	304
		LO PR	61	65	71	75	64	68	75	80	67	71	78	83	70	75	82	87	74	78	86	91	76	81	88	94
	3900	MBh	114.2	116.4	121.9	130.1	111.6	113.7	119.1	127.1	108.9	111.0	116.3	124.0	106.2	108.3	113.4	121.0	100.9	102.9	107.8	115.0	93.5	95.3	99.8	106.5
		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
		Δ T	25	24	23	20	25	24	23	20	25	24	23	20	25	25	23	20	24	24	23	20	22	22	21	19
		kW	10.00	10.21	10.53	10.87	10.76	11.00	11.35	11.72	11.44	11.69	12.07	12.47	12.04	12.30	12.71	13.13	12.54	12.82	13.25	13.69	12.98	13.27	13.71	14.18
		Amps	15.9	16.2	16.6	17.2	16.9	17.3	17.8	18.3	18.2	18.6	19.1	19.7	19.2	19.6	20.2	20.9	20.3	20.7	21.3	22.1	21.4	21.8	22.5	23.2
		HI PR	141	151	160	167	158	170	179	187	179	193	204	213	204	220	232	242	230	247	261	273	254	273	289	301
		LO PR	60	64	70	75	64	68	74	79	66	70	77	82	70	74	81	86	73	78	85	90	75	80	88	93
	3413	MBh	105.4	107.5	112.5	120.1	103.0	105.0	109.9	117.3	100.5	102.5	107.3	114.5	98.1	100.0	104.7	111.7	93.2	95.0	99.5	106.1	86.3	88.0	92.1	98.3
		S/T	0.88	0.85	0.77	0.62	0.91	0.88	0.79	0.64	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	1.00	0.97	0.87	0.71	1.00	0.97	0.88	0.71
		Δ T	25	25	23	20	25	25	23	20	25	25	24	20	25	25	24	20	25	25	23	20	23	23	22	19
		kW	9.76	9.97	10.28	10.61	10.51	10.73	11.07	11.43	11.16	11.40	11.77	12.16	11.74	12.00	12.39	12.80	12.23	12.50	12.91	13.34	12.65	12.94	13.36	13.81
		Amps	15.5	15.8	16.3	16.8	16.6	16.9	17.4	17.9	17.8	18.1	18.6	19.2	18.8	19.2	19.7	20.4	19.8	20.2	20.8	21.5	20.8	21.3	21.9	22.6
		HI PR	136	147	155	162	153	165	174	181	174	187	198	206	198	213	225	235	223	240	253	264	246	265	280	292
		LO PR	59	62	68	72	62	66	72	76	64	68	75	79	67	72	78	83	71	75	82	87	73	78	85	90

IDB = Entering Indoor Dry Bulb Temperature

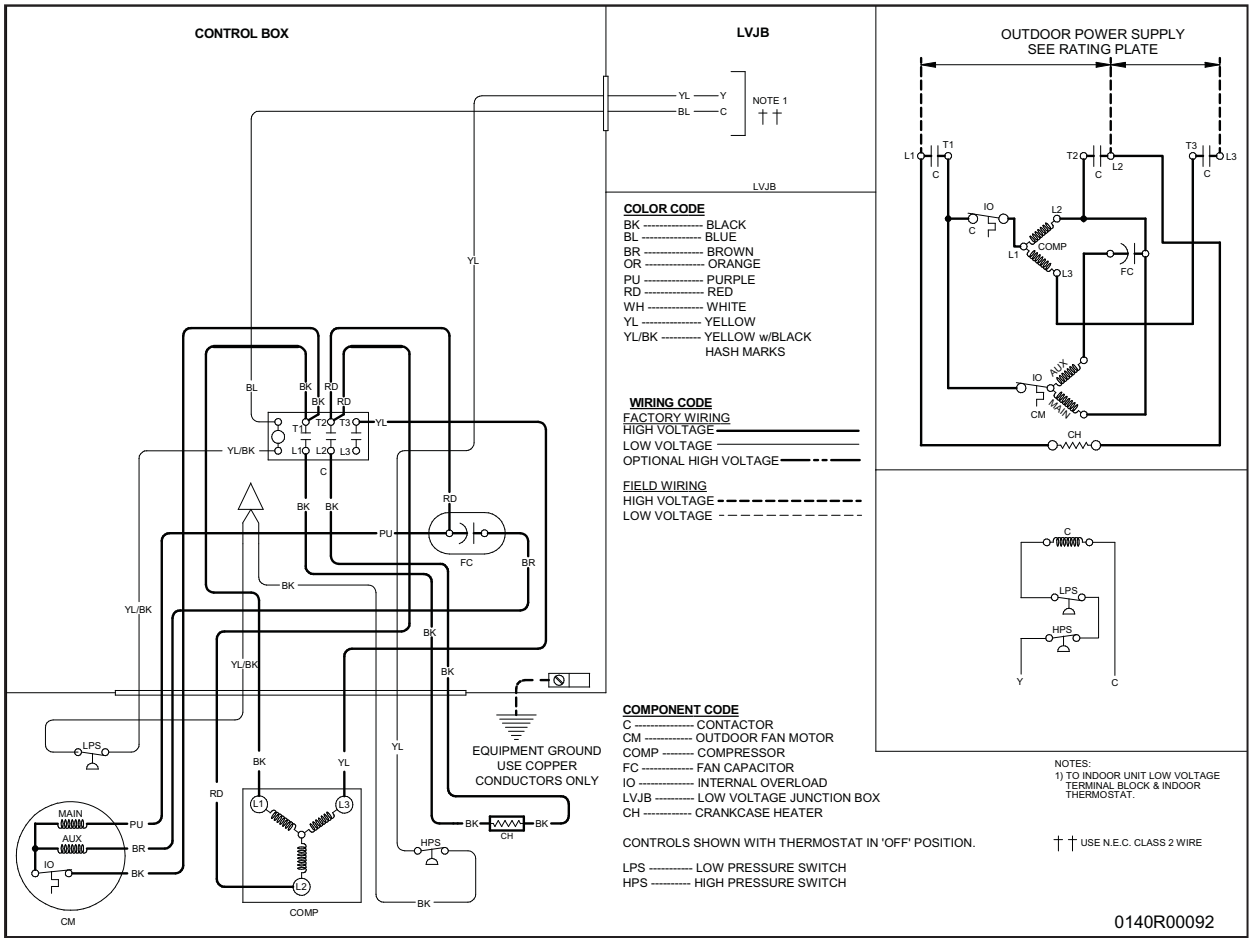
Shaded area is ACCA (TVA) conditions

Dimensions



Model	Dimensions W x D x H
CE120-5	35½ x 35½ x 41½

SCHEMATIC DIAGRAM



ACCESSORIES

Model	Description
FSK01A[1]	Freeze Protection Kit
CHTD18-60	Digital room thermostat with 1-stage cool/1-stage heat
CHT18-60	Standard room thermostat with 1-stage cool/1-stage heat
LA-01	Low Ambient Kit

[1] Installed on indoor coil

NOTES