DCG Commercial

15- & 20-TON, THREE-PHASE PACKAGED GAS/ELECTRIC

Cooling Capacity:
15 Tons :180,000 BTU/H
20 Tons: 240,000 BTU/h
Heating Capacity:
15 Tons: 300,000 BTU/H
20 Tons: 350,000 BTU/h

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Standard Features

- R-410A chlorine-free refrigerant
- Patented tubular heat exchanger
- High-efficiency scroll compressor
- Copper tube / aluminum fin coils
- High- and low-pressure switches
- High-capacity, steel-cased filter drier
- Built-in filter rack with standard 2" filters (convertible to 4" filters)
- 24-volt terminal strip
- Contactor with lugs
- Easy to service
- Bottom utility entry
- Complies with California Low NOx emissions standards
- AHRI Certified; ETL Listed

Cabinet Features

- Heavy-gauge, galvanized-steel cabinet with UV-resistant powder-paint finish
- Condenser hail guards
- Full perimeter rail
- Sloped drain pan

NOMENCLATURE

D	C	G	240	400	5	B	*	*	*	A	*
1	2	3	4,5,6	7,8,9	10	11	12	13	14	15	16

Revision Levels
Major & Minor

Brand
D Daikin

Factory-Installed Options
X No Options

Configuration
C Commercial

Factory-Installed Options
X Standard Aluminized Heat Exchanger
S Stainless-Steel Heat Exchanger

Application
C Cooling
G Gas Heat
H Heat Pump

Factory-Installed Options
X No Options

Supply Fan/Drive Type/Motor
B Belt Drive

Nominal Cooling Capacity

036	3 Tons	102	8½ Tons
048	4 Tons	120	10 Tons
060	5 Tons	180	15 Tons
072	6 Tons	240	20 Tons
090	7½ Tons		

Voltage

1	208-230/1/60	4	460/3/60
3	208-230/3/60	5	400/3/50

Nominal Heating Capacity

Gas/Electric		A/C H/P	Factory-Installed Electric Heat	
180	180,000 BTU/h	XXX	No Heat	030 30 kW
300	300,000 BTU/h	016	15 kW	045 44 kW
350	350,000 BTU/h			

See product specifications for heat size(s) available for each capacity.

PRODUCT SPECIFICATIONS

	DCG180 3005B***A*	DCG240 3505B***A*
COOLING CAPACITY		
Total, BTU/h	180,000	240,000
Sensible BTU/h	127,500	170,000
EER / IEER	10.8 / 11.0	9.8 / 10.0
Decibels	89	90
HEATING CAPACITY		
High Input/Output (KBTU/h)	300,000 / 240,000	350,000 / 280,000
Low Input/Output (KBTU/h)	225,000 / 180,000	245,000 /196,000
Steady State Efficiency (%)	80	80
Temperature Rise: High / Low (°F)	20-50 / 15-45	25-55 / 15-45
No. of Burners	7	8
EVAPORATOR MOTOR / COIL		
Motor Type (Belt Drive)	Std Static	Std Static
Indoor Nominal CFM	5,600	7,000
Indoor Motor FLA (Cooling)	6.3	6.3
Horsepower - RPM	5.0 - 1,725	5.0 - 1,725
Metering Device	TXV	TXV
Filter Size (#)	20 x 25 x 2 (6)	20 x 25 x 2 (6)
Drain Size (NPT)	1"	1"
R-410A Refrigerant Charge Cir #1/Cir #2 (oz)	195/195	180/180
Evaporator Coil Face Area (ft^2)	20	20
Rows Deep / Fins per Inch	4 / 16	4 / 16
BELT DRIVE EVAP FAN DATA		
# of Wheels (D x W)	2 (15" x 12")	2 (15" x 15")
Motor Sheave	1VP60 x 1⅛"	1VP60 x 1⅛"
Blower Sheave	BK90 x 1 3/16"	BK90 x 1 3/16"
Belt	BX44	BX46
CONDENSER FAN / COIL		
Quantity of Condenser Fan Motors	3	3
Horsepower - RPM	⅓ - 1,050	⅓ - 1,050
Fan Diameter / # Fan Blades	22 / 3	22 / 3
Outdoor Nominal CFM	9,000	9,000
Face Area (ft^2)	53.3	53.3
# Coils X Rows Deep / Fins per Inch	2X2 / 27	2X2 / 27
COMPRESSOR		
Quantity / Type	2 / Scroll	2 / Scroll
Compressor RLA / LRA ea.	16.7 / 114	18.6 / 125.0
ELECTRICAL DATA		
Voltage / Phase / Frequency	400/3/50	400/3/50
Outdoor Fan FLA / LRA (#)	.85/2.2 (3)	.85/2.2 (3)
Total Unit Amps	42.3	46.1
Min. Circuit Ampacity[1]	46.4	50.7
Max. Overcurrent Protection (amps)[2]	60	60
Entrance Power Supply	2⅛"	2⅛"
Entrance Control Voltage	⅞"	⅞"
OPERATING WEIGHT (LBS)	2083	2242
SHIP WEIGHT (LBS)	2198	2357

[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.

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	6075	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	0.71	0.59	0.41	-	0.74	0.62	0.43	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.82	0.68	0.47	-
		ΔT	19	16	12	-	19	17	13	-	19	17	13	-	19	17	13	-	19	17	13	-	18	15	12	-
		HI PR	234	252	266	-	262	282	298	-	298	321	339	-	340	366	386	-	382	411	434	-	422	454	480	-
		LO PR	102	109	119	-	108	115	126	-	112	120	131	-	118	126	137	-	124	132	144	-	128	136	149	-
	5400	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	0.68	0.57	0.39	-	0.70	0.59	0.41	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.77	0.65	0.45	-	0.78	0.65	0.45	-
		ΔT	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	19	16	12	-
		HI PR	231	249	263	-	260	279	295	-	295	318	336	-	336	362	382	-	378	407	430	-	418	450	475	-
		LO PR	101	108	118	-	107	114	124	-	111	118	129	-	117	124	136	-	122	130	142	-	127	135	147	-
	4320	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	0.65	0.55	0.38	-	0.68	0.57	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.75	0.63	0.43	-
		ΔT	22	19	14	-	22	19	15	-	22	19	15	-	22	19	15	-	22	19	15	-	21	18	14	-
		HI PR	224	242	255	-	252	271	286	-	286	308	326	-	326	351	371	-	367	395	417	-	406	436	461	-
		LO PR	98	105	114	-	104	110	121	-	108	115	125	-	113	121	132	-	119	126	138	-	123	131	143	-
75	6075	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	0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.37	0.86	0.77	0.58	0.37	0.89	0.79	0.60	0.39	0.92	0.82	0.62	0.40	0.93	0.83	0.63	0.40
		ΔT	22	20	17	11	22	20	17	12	22	20	17	12	22	21	17	12	22	20	17	12	21	19	16	11
		HI PR	236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	407	386	415	439	458	427	459	485	506
		LO PR	103	110	120	128	109	116	127	135	114	121	132	140	119	127	138	147	125	133	145	155	129	138	150	160
	5400	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	0.77	0.69	0.52	0.34	0.80	0.71	0.54	0.35	0.82	0.73	0.55	0.36	0.85	**0.76**	0.57	0.37	0.88	0.79	0.59	0.38	0.89	0.79	0.60	0.39
		ΔT	23	21	17	12	23	21	17	12	23	21	17	12	23	**21**	18	12	23	21	17	12	21	20	16	11
		HI PR	234	252	266	277	262	282	298	311	298	321	339	354	340	**366**	386	403	382	411	434	453	422	454	480	501
		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
	4320	MBh	160.7	165.5	179.1	192.3	157.0	161.6	175.0	187.8	153.3	157.8	170.8	183.3	149.5	154.0	166.6	178.8	142.0	146.3	158.3	169.9	131.6	135.5	146.6	157.4
		S/T	0.74	0.67	0.50	0.32	0.77	0.69	0.52	0.34	0.79	0.71	0.53	0.34	0.82	0.73	0.55	0.36	0.85	0.76	0.57	0.37	0.85	0.76	0.58	0.37
		ΔT	25	23	19	13	26	24	19	13	26	24	19	13	26	24	20	14	26	24	19	13	24	22	18	12
		HI PR	227	244	258	269	254	274	289	302	289	311	329	343	330	355	375	391	371	399	421	439	410	441	466	486
		LO PR	99	106	115	123	105	112	122	130	109	116	127	135	115	122	133	142	120	128	139	148	124	132	144	154

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	6075	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	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	1.00	0.91	0.74	0.56	1.00	0.95	0.77	0.58	1.00	0.95	0.78	0.58
		ΔT	25	23	20	16	25	24	21	17	25	24	21	17	26	24	21	17	24	24	21	16	23	22	19	15
		HI PR	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490	511
		LO PR	104	111	121	129	110	117	128	136	115	122	133	142	120	128	140	149	126	134	147	156	131	139	152	161
	5400	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	0.85	0.79	0.65	0.48	0.88	0.82	0.67	0.50	0.90	0.84	0.69	0.51	0.93	0.87	**0.71**	0.53	0.96	0.90	0.74	0.55	0.97	0.91	0.74	0.55
		ΔT	26	24	21	17	26	25	22	17	26	25	22	17	26	25	**22**	17	26	25	21	17	24	23	20	16
		HI PR	236	254	268	280	265	285	301	314	301	324	342	357	343	369	**390**	407	386	415	439	458	427	459	485	506
		LO PR	103	110	120	128	109	116	127	135	114	121	132	140	119	127	**139**	148	125	133	145	155	129	138	150	160
	4320	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	0.82	0.76	0.62	0.47	0.85	0.79	0.65	0.48	0.87	0.81	0.66	0.49	0.89	0.84	0.68	0.51	0.93	0.87	0.71	0.53	0.94	0.88	0.71	0.53
		ΔT	28	27	24	19	29	28	24	19	29	28	24	19	29	28	24	19	29	27	24	19	27	26	22	18
		HI PR	229	246	260	271	257	277	292	305	292	315	332	346	333	358	378	395	375	403	426	444	414	445	470	490
		LO PR	100	107	116	124	106	113	123	131	110	117	128	136	116	123	134	143	121	129	141	150	125	133	146	155
85	6075	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	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	0.99	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75
		ΔT	26	26	24	21	26	26	25	21	26	26	25	21	26	26	25	21	25	25	24	21	23	23	23	20
		HI PR	241	259	274	285	270	291	307	320	307	331	349	364	350	377	398	415	394	424	448	467	435	468	495	516
		LO PR	105	112	122	130	111	119	129	138	116	123	135	143	122	129	141	150	127	136	148	158	132	140	153	163
	5400	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	0.89	0.86	0.77	0.63	0.92	0.89	0.80	0.65	0.94	0.91	0.82	0.67	0.97	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	0.98	0.89	0.72
		ΔT	27	27	25	22	28	27	26	22	28	27	26	22	28	27	26	22	27	27	25	22	25	25	24	21
		HI PR	238	257	271	283	268	288	304	317	304	328	346	361	347	373	394	411	390	420	443	462	431	464	490	511
		LO PR	104	111	121	129	110	117	128	136	115	122	133	142	120	128	140	149	126	134	147	156	131	139	152	161
	4320	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	0.86	0.83	0.74	0.60	0.89	0.86	0.77	0.63	0.91	0.88	0.79	0.64	0.94	0.91	0.82	0.66	0.97	0.94	0.85	0.69	0.98	0.95	0.85	0.69
		ΔT	30	30	28	24	31	30	29	25	31	30	29	25	31	30	29	25	30	30	28	25	28	28	26	23
		HI PR	231	249	263	274	260	279	295	308	295	318	335	350	336	362	382	399	378	407	430	448	418	450	475	495
		LO PR	101	108	118	125	107	114	124	132	111	118	129	138	117	124	136	145	122	130	142	151	127	135	147	157

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.

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
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	0.71	0.59	0.41	-	0.74	0.62	0.43	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.82	0.68	0.47	-
		ΔT	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	18	16	12	-
		HI PR	268	289	305	-	301	324	342	-	343	369	389	-	390	420	443	-	439	472	499	-	485	522	551	-
		LO PR	99	105	115	-	105	111	121	-	109	116	126	-	114	121	133	-	120	127	139	-	124	132	144	-
	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	0.68	0.57	0.39	-	0.70	0.59	0.41	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.77	0.65	0.45	-	0.78	0.65	0.45	-
		ΔT	20	18	13	-	21	18	14	-	21	18	14	-	21	18	14	-	20	18	13	-	19	17	13	-
		HI PR	266	286	302	-	298	321	339	-	339	365	385	-	386	416	439	-	435	468	494	-	480	517	546	-
		LO PR	98	104	114	-	104	110	120	-	108	115	125	-	113	120	131	-	118	126	138	-	123	130	142	-
	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	0.65	0.55	0.38	-	0.68	0.57	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.75	0.63	0.43	-
		ΔT	23	20	15	-	23	20	15	-	23	20	15	-	23	20	15	-	23	20	15	-	21	18	14	-
		HI PR	258	277	293	-	289	311	329	-	329	354	374	-	375	403	426	-	422	454	479	-	466	501	529	-
		LO PR	95	101	110	-	100	107	117	-	104	111	121	-	110	117	127	-	115	122	133	-	119	126	138	-
75	7875	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	0.81	0.72	0.55	0.35	0.84	0.75	0.57	0.37	0.86	0.77	0.58	0.37	0.89	0.79	0.60	0.39	0.92	0.82	0.62	0.40	0.93	0.83	0.63	0.40
		ΔT	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	21	20	16	11
		HI PR	271	292	308	321	304	327	346	361	346	372	393	410	394	424	448	467	443	477	504	526	490	527	557	581
		LO PR	100	106	116	124	106	112	123	131	110	117	128	136	115	123	134	143	121	129	140	150	125	133	145	155
	7000	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	0.77	0.69	0.52	0.34	0.80	0.71	0.54	0.35	0.82	0.73	0.55	0.36	0.85	**0.76**	0.57	0.37	0.88	0.79	0.59	0.38	0.89	0.79	0.60	0.39
		ΔT	24	22	18	12	24	22	18	12	24	22	18	12	24	**22**	18	13	24	22	18	12	22	20	17	12
		HI PR	269	289	305	318	301	324	342	357	343	369	389	406	390	**420**	444	463	439	473	499	520	485	522	551	575
		LO PR	99	105	115	122	105	111	122	129	109	116	126	135	114	**122**	133	141	120	127	139	148	124	132	144	153
	5600	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	0.74	0.67	0.50	0.32	0.77	0.69	0.52	0.34	0.79	0.71	0.53	0.34	0.82	0.73	0.55	0.36	0.85	0.76	0.57	0.37	0.85	0.76	0.58	0.37
		ΔT	26	24	20	14	26	24	20	14	27	24	20	14	27	25	20	14	26	24	20	14	25	23	19	13
		HI PR	260	280	296	309	292	315	332	346	332	358	378	394	379	407	430	449	426	458	484	505	471	506	535	558
		LO PR	96	102	112	119	101	108	118	126	105	112	123	130	111	118	129	137	116	124	135	144	120	128	139	149

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	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	1.00	0.91	0.74	0.56	1.00	0.95	0.77	0.58	1.00	0.95	0.78	0.58
		ΔT	25	24	21	17	26	24	21	17	26	24	21	17	26	25	21	17	25	24	21	17	23	23	20	16
		HI PR	274	295	311	325	307	331	349	364	350	376	397	414	398	428	452	472	448	482	509	531	495	533	562	587
		LO PR	101	107	117	125	107	114	124	132	111	118	129	137	117	124	135	144	122	130	142	151	126	134	147	156
	7000	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	0.85	0.79	0.65	0.48	0.88	0.82	0.67	0.50	0.90	0.84	0.69	0.51	0.93	0.87	**0.71**	0.53	0.96	0.90	0.74	0.55	0.97	0.91	0.74	0.55
		ΔT	26	25	22	17	27	25	22	18	27	25	22	18	27	26	**22**	18	26	25	22	18	25	24	21	16
		HI PR	271	292	308	321	304	328	346	361	346	372	393	410	394	424	**448**	467	444	477	504	526	490	527	557	581
		LO PR	100	106	116	124	106	112	123	131	110	117	128	136	115	123	**134**	143	121	129	140	150	125	133	145	155
	5600	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	0.82	0.76	0.62	0.47	0.85	0.79	0.65	0.48	0.87	0.81	0.66	0.49	0.89	0.84	0.68	0.51	0.93	0.87	0.71	0.53	0.94	0.88	0.71	0.53
		ΔT	29	28	24	19	30	28	25	20	30	28	25	20	30	29	25	20	29	28	24	20	27	26	23	18
		HI PR	263	283	299	312	295	318	335	350	336	361	382	398	382	412	435	453	430	463	489	510	475	512	540	563
		LO PR	97	103	113	120	103	109	119	127	107	113	124	132	112	119	130	138	117	125	136	145	121	129	141	150
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	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	0.99	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75
		ΔT	27	26	25	22	27	27	25	22	27	27	25	22	27	27	26	22	26	26	25	22	24	24	23	20
		HI PR	277	298	314	328	310	334	353	368	353	380	401	419	402	433	457	477	452	487	514	536	500	538	568	592
		LO PR	102	109	119	126	108	115	125	133	112	119	130	139	118	125	137	146	123	131	143	153	128	136	148	158
	7000	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	0.89	0.86	0.77	0.63	0.92	0.89	0.80	0.65	0.94	0.91	0.82	0.67	0.97	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	0.98	0.89	0.72
		ΔT	28	28	26	23	28	28	26	23	28	28	26	23	29	28	27	23	28	28	26	23	26	26	24	21
		HI PR	274	295	311	325	307	331	349	364	350	376	397	414	398	428	452	472	448	482	509	531	495	533	562	587
		LO PR	101	107	117	125	107	114	124	132	111	118	129	137	117	124	135	144	122	130	142	151	126	134	147	156
	5600	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	0.86	0.83	0.74	0.60	0.89	0.86	0.77	0.63	0.91	0.88	0.79	0.64	0.94	0.91	0.82	0.66	0.97	0.94	0.85	0.69	0.98	0.95	0.85	0.69
		ΔT	31	31	29	25	32	31	29	25	32	31	29	25	32	31	30	26	31	31	29	25	29	29	27	24
		HI PR	266	286	302	315	298	321	339	353	339	365	385	402	386	416	439	458	435	468	494	515	480	517	546	569
		LO PR	98	104	114	121	104	110	120	128	108	114	125	133	113	120	131	140	118	126	138	147	123	130	142	152

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.

AIRFLOW DATA

DC*180 STANDARD BELT DRIVE -- DOWNSHOT

ESP, IN H_2O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6824	832	1.84
0.4	---	---	---	---	---	---	---	---	---	6832	898	2.22	6558	866	1.95	5928	835	1.64
0.6	---	---	---	7000	960	2.58	6494	929	2.22	6237	899	1.93	5659	868	1.73	5418	836	1.43
0.8	6630	994	2.55	6279	964	2.23	5884	933	2.07	5432	903	1.81	---	---	---	---	---	---
1	5815	999	2.17	5595	967	2.04	5111	936	1.68	---	---	---	---	---	---	---	---	---
1.2	5130	1001	2.01	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

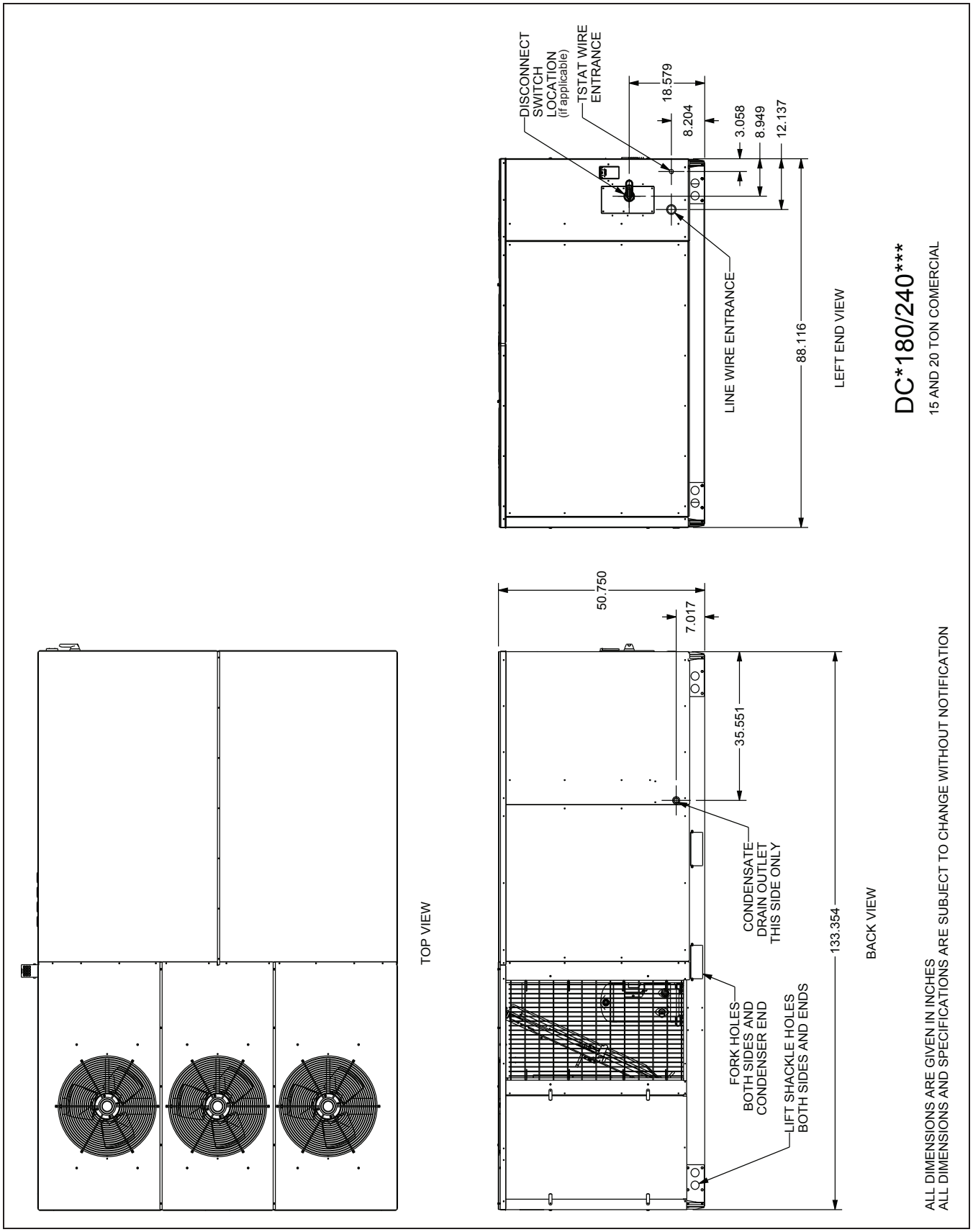
DC*240 STANDARD BELT DRIVE -- DOWNSHOT

ESP, IN H_2O	TURNS OPEN																	
	0			1			2			3			4			5		
	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP	CFM	RPM	BHP
0.2	8767	981	5.80	8989	947	5.43	8829	920	5.16	8320	891	4.67	7990	859	4.24	7894	830	3.60
0.4	8218	985	5.36	8502	951	5.15	8140	924	4.77	7714	895	4.24	7326	861	3.75	6934	832	3.28
0.6	7620	990	4.94	7806	953	4.79	7412	928	4.30	7181	896	3.81	6773	863	3.45	---	---	---
0.8	---	---	---	7126	959	4.37	---	---	---	---	---	---	---	---	---	---	---	---

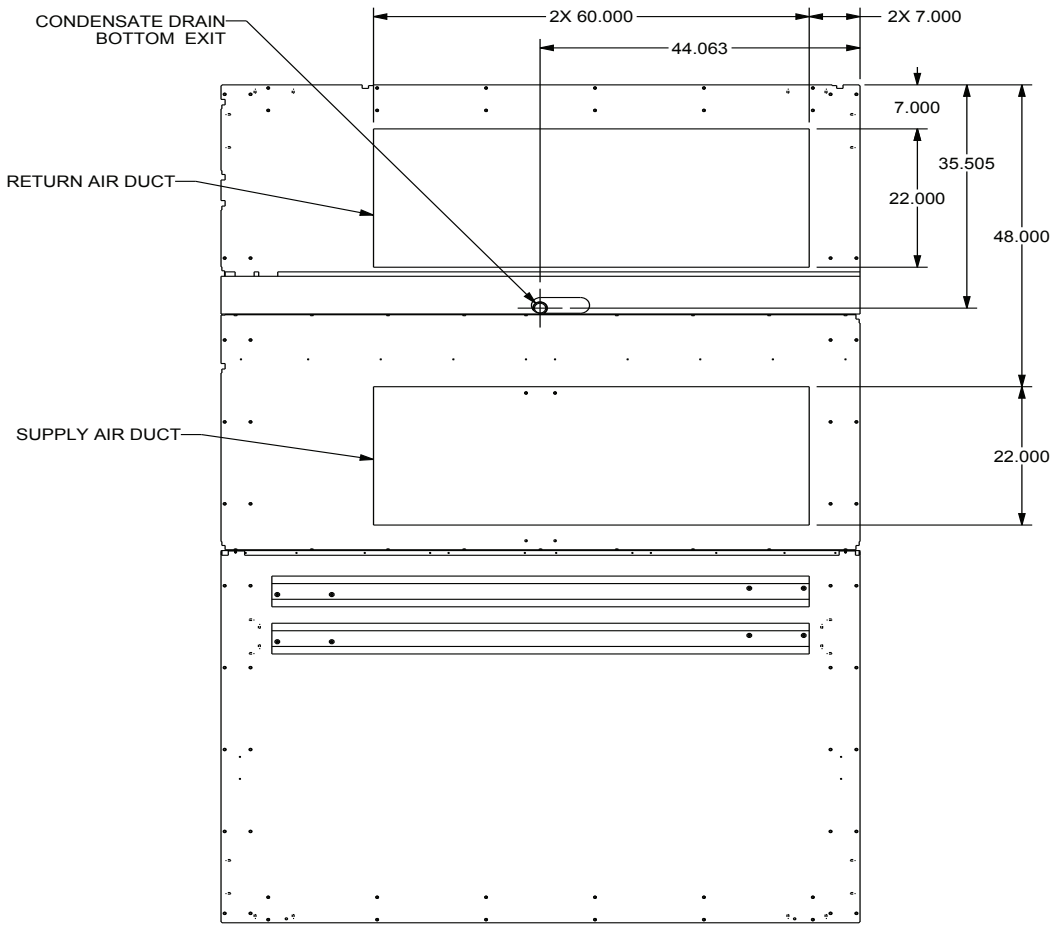
NOTES

- 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.
- Unit factory shipped with the sheave set at 2.5 turns open.

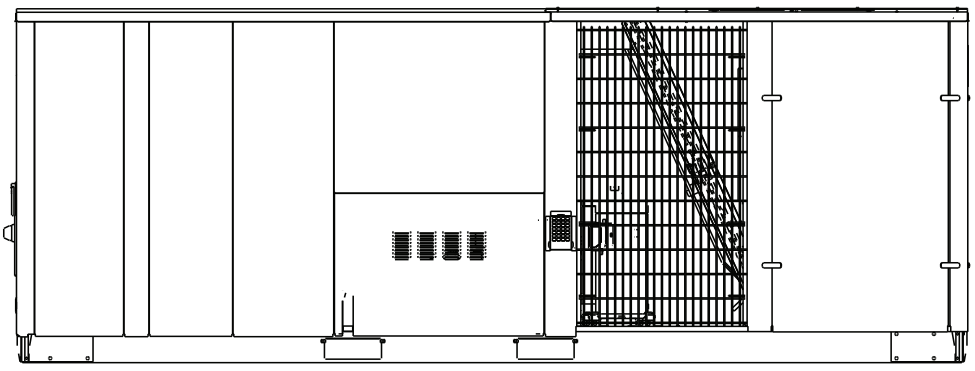
DIMENSIONS


DISCONNECT SWITCH LOCATION (if applicable)
TSTAT WIRE ENTRANCE
18.579
8.204
3.058
8.949
12.137
LINE WIRE ENTRANCE
88.116
LEFT END VIEW
DC*180/240***
15 AND 20 TON COMERCIAL
50.750
7.017
35.551
CONDENSATE DRAIN OUTLET THIS SIDE ONLY
133.354
FORK HOLES BOTH SIDES AND CONDENSER END
LIFT SHACKLE HOLES BOTH SIDES AND ENDS
BACK VIEW
TOP VIEW
ALL DIMENSIONS ARE GIVEN IN INCHES
ALL DIMENSIONS AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION

DIMENSIONS (CONT.)



BASE PAN VIEW
(VIEWED FROM TOP DOWN)



9.672

46.263

FLUE VENT OUTLET

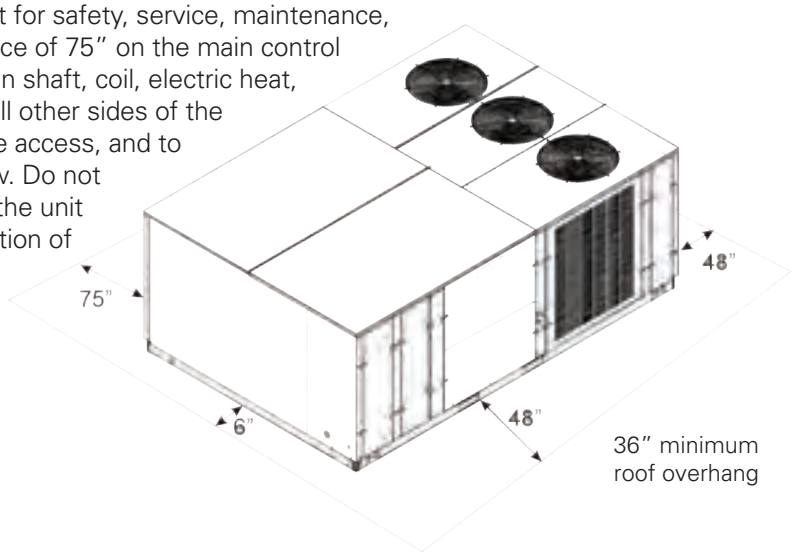
COMBUSTION AIR INLET (GAS UNITS)

GAS LINE ENTRANCE

FRONT VIEW

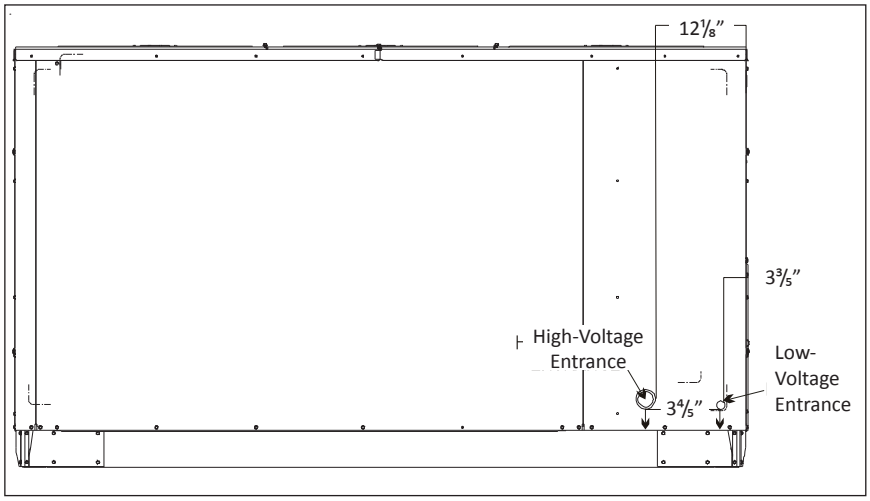
UNIT CLEARANCES

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.



36" minimum
roof overhang

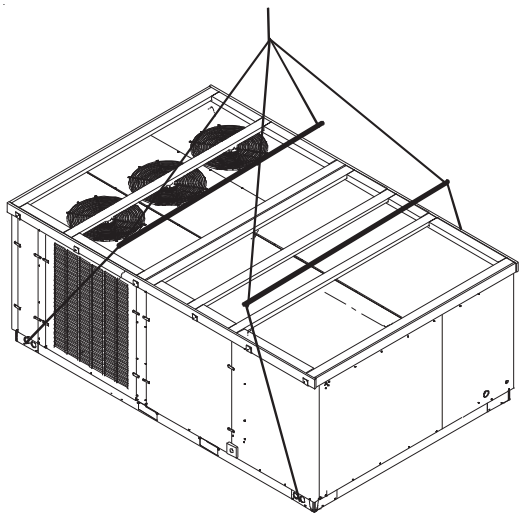
ELECTRICAL ENTRANCE LOCATIONS



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.

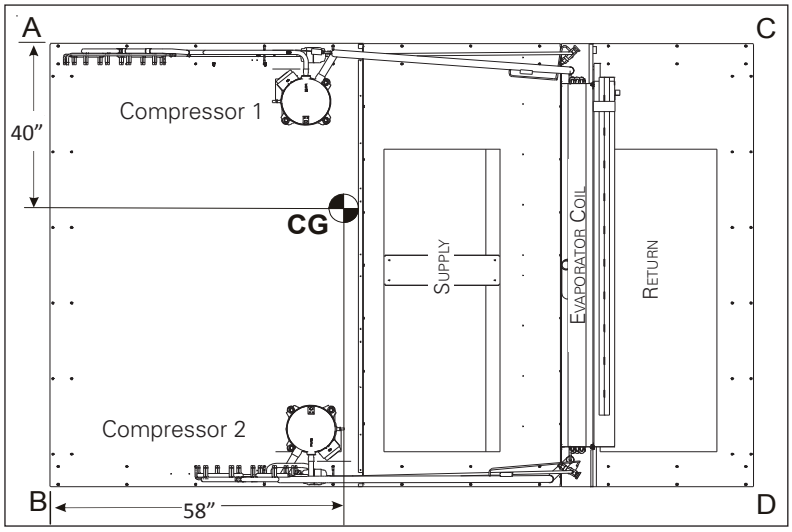


Important: If using bottom discharge with roof curb, duct-work should be attached to the curb prior to installing the unit. Duct-work dimensions are shown in Roof Curb Installation Instructions Manual.

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
Weight A	582
Weight B	475
Weight C	565
Weight D	461
Shipping Weight	2198
Operating Weight	2083

20-TON UNITS	WEIGHTS
Weight A	645
Weight B	527
Weight C	589
Weight D	481
Shipping Weight	2357
Operating Weight	2242

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.

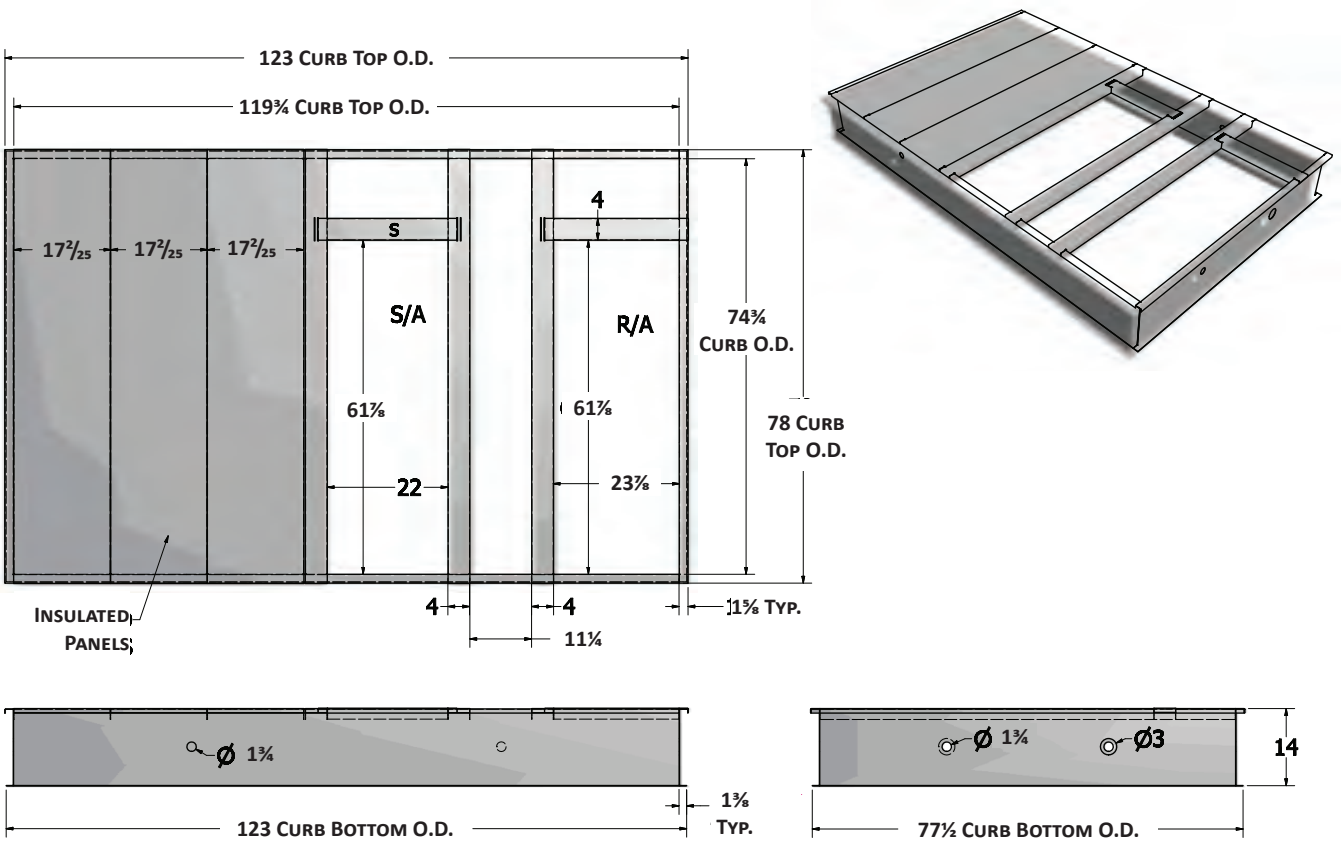
Proper unit installation requires that the roof curb be firmly and permanently attached to the roof structure. Check for adequate fastening method prior
to setting the unit on the curb.

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.

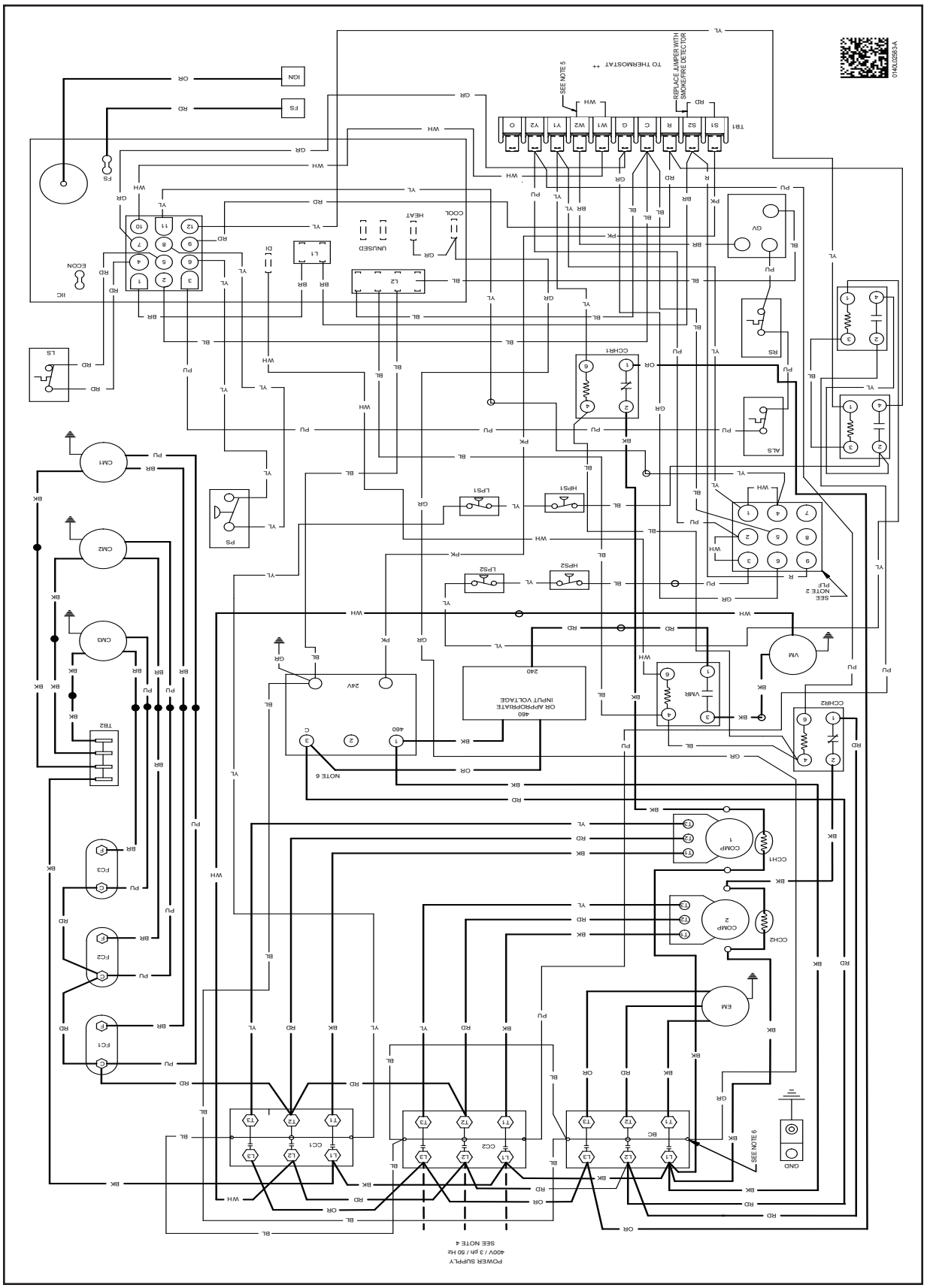
- Determine sufficient structural support before locating and mounting the curb and package unit.
- Duct-work must be constructed using industry guidelines. The duct-work must be placed into the roof curb before mounting the package unit. Our full perimeter curbs include duct connection frames to be 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 — DCG 15 & 20 TONS (400V/ 50 HZ THREE-PHASE BELT DRIVE)

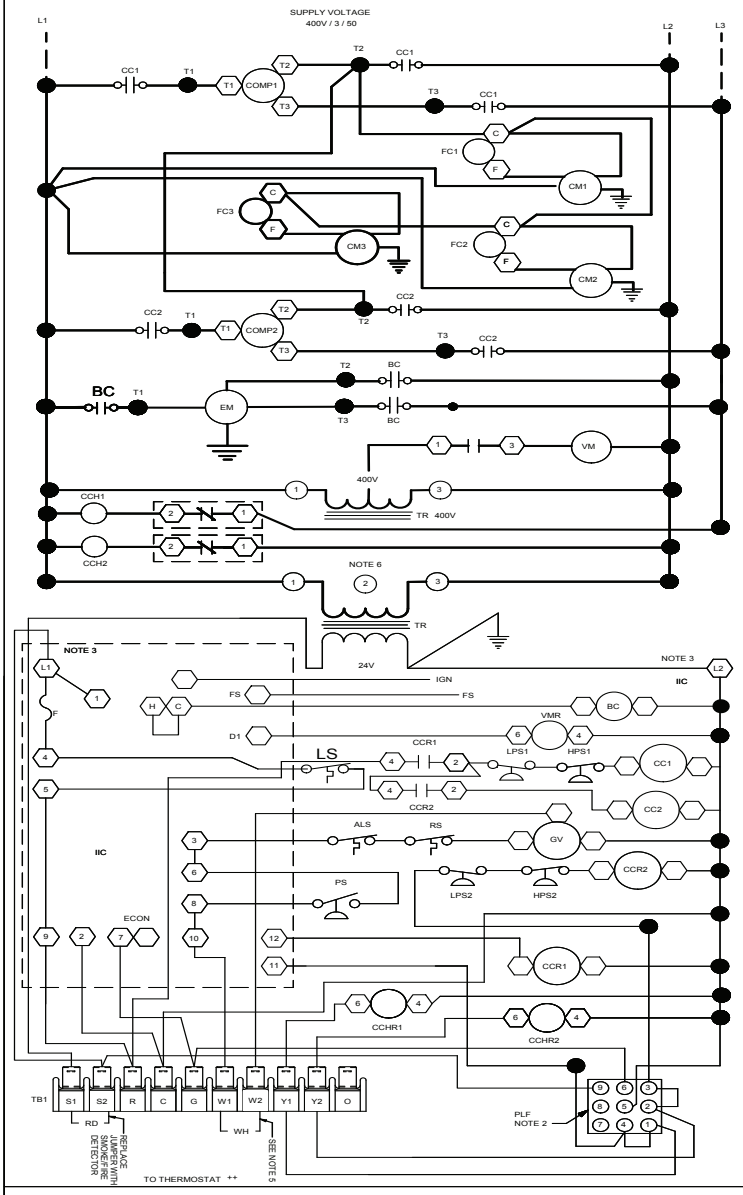


High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

WARNING

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

WIRING DIAGRAM — DCG 15 & 20 TONS (400V/ 50 HZ THREE-PHASE BELT DRIVE)



COMPONENT LEGEND

ALS	AUXILLARY LIMIT SWITCH
BC	BLOWER CONTACTOR
COMP	COMPRESSOR
CM	CONDENSER MOTOR
CC	COMPRESSOR CONTACTOR
CCH	CRANK CASE HEATER
CCHR	CRANK CASE HEATER RELAY
CCR	COMPRESSOR CONTACTOR RELAY
EM	EVAPORATOR MOTOR
F	FUSE
FC	FAN CAPACITOR
FS	FLAME SENSOR
GND	EQUIPMENT GROUND
GV	GAS VALVE
HPS	HIGH PRESSURE SWITCH
IBR	INDOOR BLOWER RELAY
IIC	INTEGRATED IGNITION CONTROL
IGN	IGNITOR
LPS	LOW PRESSURE SWITCH
LS	LIMIT SWITCH
PLF	FEMALE PLUG/CONNECTOR
PS	PRESSURE SWITCH
RS	ROLLOUT SWITCH
TB1	TERMINAL BLOCK (24V SIGNAL)
TB2	TERMINAL BLOCK (L1)
TR	TRANSFORMER
VM	VENT MOTOR
VMR	VENT MOTOR RELAY

NOTES

1. REPLACEMENT WIRE MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL. (USE COPPER CONDUCTOR ONLY).
2. ACCESSORY ECONOMIZER PLUG ADJACENT TO BLOWER HOUSING IN RETURN AIR COMPARTMENT. REMOVE MALE PLUG AND ATTACH FEMALE PLUG TO THE ECONOMIZER ACCESSORY.
3. L1 AND L2 ON IIC CONTROL IS 24V INPUT.
4. USE COPPER CONDUCTORS ONLY.
   ++ USE NEC CLASS 2 WIRE.
5. FOR TWO STAGE OPERATION REMOVE W1 TO W2 WIRE JUMPER.
6. FOR 575V OPERATION MOVE BLACK WIRE FROM TERMINAL 3 TO TERMINAL 2 ON 460V

INSTALLER/SERVICEMAN

THE STATUS LIGHT ON THE FURNACE CONTROL MAY BE USED AS A GUIDE TO TROUBLESHOOTING THIS APPLIANCE. STATUS LIGHT CODES ARE AS FOLLOWS:

STATUS LIGHT	EQUIPMENT STATUS	CHECK
ON	NORMAL OPERATION	------
OFF	NO POWER OR INTERNAL CONTROL	CHECK INPUT POWER CHECK FUSE ON CONTROL REPLACE CONTROL
1 BLINK	IGNITION FAILURE OPEN ROLLOUT SWITCH OPEN AUX. LIMIT SWITCH	GAS FLOW GAS PRESSURE GAS VALVE FLAME SENSOR FLAME ROLLOUT BAD SWITCH AUX. LIMIT OPEN
2 BLINKS	PRESSURE SWITCH OPEN	CHECK PRESSURE SWITCH
3 BLINKS	PRESSURE SWITCH CLOSED WITHOUT INDUCER ON	CHECK PRESSURE SWITCH
4 BLINKS	OPEN LIMIT SWITCH	MAIN LIMIT OPEN BAD SWITCH
5 BLINKS	FALSE FLAME SENSED	STICKING GAS VALVE
6 BLINKS	COMPRESSOR OUTPUT DELAY	3 MIN. COMP. ANTI-CYCLE TIMER

SEE UNIT RATING PLATE FOR TYPE AND SIZE OF OVER CURRENT PROTECTION

FACTORY WIRING
LINE VOLTAGE
LOW VOLTAGE

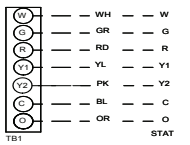
FIELD WIRING
HIGH VOLTAGE

WIRE CODE

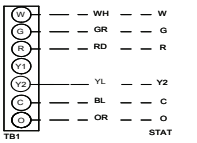
BK	BLACK
BL	BLUE
BR	BROWN
GR	GREEN
OR	ORANGE
PK	PINK
PU	PURPLE
RD	RED
WH	WHITE
YL	YELLOW
YL/PK	YELLOW WITH PINK STRIP
BL/PK	BLUE WITH PINK STRIP

THERMOSTAT FIELD WIRING ++

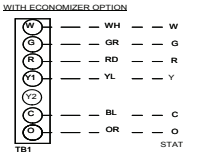
2 STAGE COOLING



NO ECONOMIZER



WITH ECONOMIZER OPTION



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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

FILED-INSTALLED ITEM #	DESCRIPTION	FITS MODEL SIZES	FIELD-INSTALLED
DDNECNJ180240	Downflow Economizer	15-20 tons	√
	Electric Heat Kits	All Models	√