GCG COMMERCIAL

Cooling Capacity: 260,000 BTU/h
Heating Capacity: 360,000 BTU/h

THREE-PHASE PACKAGED GAS UNIT 25 TONS

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ITS HAVE TWO FANS.

Standard Features

- Patented tubular heat exchanger
- High-efficiency scroll compressor
- Aluminum micro-channel indoor coil on 25-ton units
- 25-ton units contain two outdoor fans
- Copper tube / aluminum fin coils
- High- and low-pressure switches
- High-capacity, steel-cased filter drier
- 24-volt terminal strip
- Contactor with lugs

Cabinet Features

- Heavy-gauge, galvanized-steel cabinet with UV-resistant powder-paint finish
- Condenser hail guards
- Full perimeter rail
- Built-in filter rack with standard 2” filters (convertible to 4” filters)
- Sloped drain pan

G	C	G	300	360	E	B	*	*	*	A	*
1	2	3	4,5,6	7,8,9	10	11	12	13	14	15	16

Revision Levels
Major & Minor

Brand
G Goodman

Configuration
C Commercial

Application
C Cooling
G Gas Heat
H Heat Pump

Nominal Cooling Capacity

036	3 Tons	102	8½ Tons
048	4 Tons	120	10 Tons
060	5 Tons	150	12½ tons
072	6 Tons	180	15 Tons
090	7½ Tons	240	20 Tons

Nominal Heating Capacity

Gas/Electric		A/C H/P Factory-Installed Electric Heat			
045	45,000 BTU/h	XXX	No Heat		
090	90,000 BTU/h	010	10 kW	030	30 kW
115	115,000 BTU/h	015	15 kW	031	30 kW
140	140,000 BTU/h	016	15 kW	045	45 kW
210	210,000 BTU/h	018	18 kW	046	45 kW
350	350,000 BTU/h	020	20 kW	060	60 kW
360	360,000 BTU/h	025	25 kW		

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

Voltage
E 400/3/50 (For Argentina Only)

Supply Fan/Drive Type/Motor
B Belt Drive (singe speed)
D Direct Drive
V Two-Speed Belt Drive
H High-Static Belt Drive

Factory-Installed Options
X No Options
A Downflow Economizer
H Disconnect Switch (non-fused)
J Downflow Economizer; Disconnect Switch (non-fused)

Note: Not all options available for all products.

Factory-Installed Options
X No Options
A Non-powered convenience outlet
B Powered convenience outlet
C Low-ambient kit
D Return air smoke detector
E Supply air smoke detector
F Non-powered convenience outlet; Low-ambient kit
G Non-powered convenience outlet; Return air smoke detector
H Non-powered convenience outlet; Supply air smoke detector
J Non-powered convenience outlet; Return & Supply air smoke detectors
K Non-powered convenience outlet; Low-ambient kit; Supply air smoke detector
L Non-powered convenience outlet; Low-ambient kit Return & Supply air smoke detectors
M Powered convenience outlet; Low-ambient kit
N Powered convenience outlet; Return air smoke detector
O Powered convenience outlet; Return & Supply air smoke detectors
P Powered convenience outlet; Supply air smoke detector
Q Powered convenience outlet; Low-ambient kit; Return air smoke detector
R Powered convenience outlet; Low-ambient kit; Supply air smoke detector
T Powered convenience outlet; Low-ambient kit; Return & Supply air smoke detectors
U Non-powered convenience outlet; Low-ambient kit; Return air smoke detector
V Low-ambient kit; Return air smoke detector
W Low-ambient kit; Supply air smoke detector
Y Low-ambient kit; Return & Supply air smoke detectors
Z Return & Supply air smoke detectors

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

Factory-Installed Options

- Stainless-Steel Heat Exchanger (DCG units only): A tubular heat exchanger made of 409-type stainless steel is installed in the unit.
- Low-Ambient Kit: Allows for cooling operation at lower outdoor temperatures. On the 3- to 6-ton units, cooling operation is extended from 60°F ambient temperature to 35°F outside air temperature. On 7½- to 20-ton units, cooling operation is extended from 35°F ambient temperature to 0°F outside air temperature.
- Economizers (Downflow): Based on air conditions, can provide outside air to cool the space.
- Electric Heat Kits (DCC and DCH units only): Available in all voltage options.
- Non-powered Convenience Outlet: A 120V, 15A, GFCI outlet makes it easier for technicians to service the unit once an electrician runs power to the outlet.
- Powered Convenience Outlet: A 120V, 15A, GFCI outlet powered with a transformer built into the unit. When a factory-installed powered convenience outlet is installed in the equipment, the unit MCA (Min. Circuit Ampacity) will increase by 7.5A for 208/230V units, increase by 3.75A for 460V units, and by 3A for 575V units. The MOP (Max. Overcurrent Protection) device must be sized accordingly.
- Disconnect Switch (non-fused): A disconnect switch is installed in the unit and factory wiring will be complete from the switch to the unit. Please note that for air conditioning (DCC units) and heat pump models (DCH units), the appropriate electric heat kit must be ordered to be factory-installed along with the disconnect switch (non-fused) when it is ordered. Please note that for models with a powered convenience outlet option and a disconnect switch (non-fused) option, the power to the powered convenience outlet will be shut off when the disconnect switch (non-fused) is in the off position.
- Return Air and/or Supply Air Smoke Detectors: Return air and/or supply air smoke detectors are installed in the unit.
- Two-speed indoor fan blower models are available on 7½, 8½, 10, 12½, 15, & 20-ton units. Section 6.4.3.10.b of ASHRAE Standard 90.1-2010 and Section 6.5.3.2.1.a of ASHRAE Standard 90.1-2013 require a minimum of two fan speeds. Section 140.4(m)1 of California Energy Commission Title 24 2013 contains a similar provision. When the units with the two-speed indoor fan blowers operate on a call for the first stage of cooling, the fan operates at low speed, which is 66% of full speed. When the units operate on a call for the second stage of cooling, the fan operates at full speed. In heating operation, the fan operates at full speed. During ventilation operation, the fan operates at low speed.
- High Static belt drive allows for operation in higher static applications.

	GCG300 360EB***A*
COOLING CAPACITY	
Total, BTU/h	260,000
Sensible BTU/h	173,000
EER / IEER	10.86
Decibels	92.3
HEATING CAPACITY	
High Input/Output (KBTU/h)	360/288
Low Input/Output (KBTU/h)	270/216
Steady State Efficiency	80
Temperature Rise Range (°F) High/Low	25-55/15-45
No. of Burners	8
EVAPORATOR MOTOR / COIL	
Motor Type (Belt Drive)	Std Static
Indoor Nominal CFM	7,500
Indoor Motor FLA (Cooling)	9.4
Horsepower - RPM	7.5-1745
Metering Device	TXV
Filter Size (#)	20 x 20 x 2 (8)
Drain Size (NPT)	1"
R-410A Refrigerant Charge Cir #s 1 & 2	215 & 198 Ozs
Evaporator Coil Face Area (ft^2)	17.2
Rows Deep / Fins per Inch	2/15
BELT DRIVE EVAP FAN DATA	
# of Wheels (D x W)	2 (15" x 15")
Motor Sheave	1VP68 x 1⅜"
Blower Sheave	BK110 x 1 7/16"
Belt	BX46
CONDENSER FAN / COIL	
Quantity of Condenser Fan Motors	2
Horsepower - RPM	1-950
Fan Diameter / # Fan Blades	30/2
Outdoor Nominal CFM	15,000
Face Area (ft^2)	53.3
Rows Deep / Fins per Inch	2/27
COMPRESSOR	
Quantity / Type	2/Scroll
Compressor RLA / LRA CIR. #1	18.6/118.0
Compressor RLA / LRA CIR. #2	18.6/118.0
ELECTRICAL DATA	
Voltage / Phase / Frequency	400/3/50
Outdoor Fan FLA / LRA	2.6/11.7
Total Unit Amps	53.6
Min. Circuit Ampacity[1]	58.0
Max. Overcurrent Protection (amps)[2]	70.0
Entrance Power Supply	2⅛"
Entrance Control Voltage	⅞"
OPERATING WEIGHT (LBS)	2283
SHIP WEIGHT (LBS)	2513

[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.

			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	6869	MBh	243.2	252.1	276.2	-	237.6	246.3	269.8	-	231.9	240.4	263.4	-	226.3	234.5	257.0	-	215.0	222.8	244.1	-	199.1	206.4	226.1	-
		S/T	0.61	0.51	0.36	-	0.64	0.53	0.37	-	0.65	0.55	0.38	-	0.67	0.56	0.39	-	0.70	0.58	0.40	-	0.71	0.59	0.41	-
		ΔT	20	17	13	-	20	18	13	-	20	18	13	-	20	18	13	-	20	17	13	-	19	16	12	-
		kW	18.40	18.77	19.34	-	19.75	20.16	20.79	-	20.95	21.40	22.07	-	22.01	22.48	23.20	-	22.91	23.40	24.16	-	23.69	24.20	24.98	-
		Amps	34.9	35.6	36.4	-	37.1	37.8	38.7	-	39.5	40.3	41.3	-	41.7	42.5	43.6	-	43.8	44.7	45.9	-	45.9	46.8	48.1	-
		HI PR	258	278	294	-	290	312	330	-	330	355	375	-	376	404	427	-	423	455	480	-	467	502	531	-
		LO PR	103	110	120	-	109	116	127	-	113	120	132	-	119	127	138	-	125	133	145	-	129	137	150	-
	7632	MBh	247.0	256.0	280.4	-	241.2	250.0	273.9	-	235.5	244.1	267.4	-	229.7	238.1	260.9	-	218.2	226.2	247.8	-	202.2	209.5	229.6	-
		S/T	0.64	0.53	0.37	-	0.66	0.55	0.38	-	0.68	0.57	0.39	-	0.70	0.58	0.40	-	0.73	0.61	0.42	-	0.73	0.61	0.42	-
		ΔT	19	16	12	-	19	17	13	-	19	17	13	-	19	17	13	-	19	16	13	-	18	15	12	-
		kW	18.64	19.02	19.60	-	20.02	20.44	21.07	-	21.24	21.69	22.37	-	22.32	22.79	23.52	-	23.23	23.73	24.50	-	24.02	24.54	25.34	-
		Amps	35.3	36.0	36.9	-	37.5	38.2	39.2	-	40.0	40.8	41.9	-	42.2	43.0	44.2	-	44.4	45.3	46.5	-	46.5	47.5	48.8	-
		HI PR	263	283	299	-	295	317	335	-	336	361	381	-	382	411	434	-	430	463	489	-	475	511	540	-
		LO PR	105	112	122	-	111	118	129	-	115	123	134	-	121	129	141	-	127	135	147	-	131	140	152	-
	8395	MBh	250.7	259.8	284.6	-	244.8	253.8	278.0	-	239.0	247.7	271.4	-	233.2	241.7	264.8	-	221.5	229.6	251.5	-	205.2	212.7	233.0	-
		S/T	0.67	0.56	0.38	-	0.69	0.58	0.40	-	0.71	0.59	0.41	-	0.73	0.61	0.42	-	0.76	0.63	0.44	-	0.76	0.64	0.44	-
		ΔT	18	16	12	-	18	16	12	-	18	16	12	-	19	16	12	-	18	16	12	-	17	15	11	-
		kW	18.74	19.12	19.70	-	20.13	20.55	21.19	-	21.36	21.81	22.50	-	22.44	22.92	23.66	-	23.36	23.87	24.64	-	24.16	24.68	25.49	-
		Amps	35.5	36.2	37.1	-	37.7	38.4	39.4	-	40.2	41.0	42.1	-	42.4	43.3	44.4	-	44.6	45.5	46.7	-	46.8	47.7	49.0	-
		HI PR	265	285	301	-	297	320	338	-	338	364	384	-	385	414	437	-	433	466	492	-	478	515	544	-
		LO PR	106	112	123	-	112	119	130	-	116	123	135	-	122	130	142	-	128	136	148	-	132	141	153	-
75	6869	MBh	247.4	254.7	275.7	295.9	241.6	248.8	269.3	289.0	235.9	242.8	262.9	282.1	230.1	**236.9**	256.4	275.2	218.6	225.1	243.6	261.5	202.5	208.5	225.7	242.2
		S/T	0.70	0.62	0.47	0.30	0.72	0.65	0.49	0.32	0.74	0.66	0.50	0.32	0.77	**0.68**	0.52	0.33	0.79	0.71	0.54	0.35	0.80	0.72	0.54	0.35
		ΔT	23	21	17	12	23	22	18	12	23	22	18	12	24	**22**	18	12	23	21	18	12	22	20	16	11
		kW	18.54	18.92	19.49	20.10	19.91	20.33	20.96	21.62	21.12	21.57	22.25	22.96	22.19	**22.67**	23.39	24.15	23.10	23.60	24.36	25.16	23.88	24.40	25.19	26.03
		Amps	35.2	35.8	36.7	37.8	37.3	38.0	39.0	40.1	39.8	40.6	41.7	42.9	42.0	**42.8**	44.0	45.3	44.1	45.0	46.3	47.7	46.3	47.2	48.5	50.0
		HI PR	261	281	297	309	293	315	333	347	333	359	379	395	379	**408**	431	450	427	459	485	506	472	508	536	559
		LO PR	104	111	121	129	110	117	128	136	114	122	133	141	120	**128**	140	149	126	134	146	156	130	139	151	161
	7632	MBh	251.1	258.6	279.9	300.4	245.3	252.6	273.4	293.4	239.5	246.5	266.9	286.4	233.6	**240.5**	260.4	279.4	221.9	228.5	247.3	265.5	205.6	211.7	229.1	245.9
		S/T	0.72	0.65	0.49	0.32	0.75	0.67	0.51	0.33	0.77	0.69	0.52	0.34	0.79	**0.71**	0.54	0.35	0.82	0.74	0.56	0.36	0.83	0.74	0.56	0.36
		ΔT	22	20	17	11	22	20	17	12	22	20	17	12	22	**21**	17	12	22	20	17	11	21	19	16	11
		kW	18.79	19.17	19.75	20.37	20.18	20.60	21.24	21.92	21.41	21.87	22.56	23.28	22.50	**22.98**	23.72	24.49	23.42	23.93	24.70	25.52	24.22	24.75	25.55	26.40
		Amps	35.6	36.2	37.1	38.2	37.8	38.5	39.5	40.6	40.3	41.1	42.2	43.5	42.5	**43.4**	44.5	45.9	44.7	45.6	46.9	48.3	46.9	47.8	49.2	50.7
		HI PR	266	286	302	315	298	321	339	353	339	365	385	402	386	**415**	439	458	434	467	494	515	480	516	545	569
		LO PR	106	113	123	131	112	119	130	138	116	124	135	144	122	**130**	142	151	128	136	149	158	133	141	154	164
	8395	MBh	254.9	262.4	284.1	304.9	249.0	256.3	277.5	297.8	243.0	250.2	270.9	290.7	237.1	**244.1**	264.3	283.6	225.3	231.9	251.0	269.4	208.7	214.8	232.5	249.6
		S/T	0.76	0.68	0.51	0.33	0.78	0.70	0.53	0.34	0.80	0.72	0.54	0.35	0.83	**0.74**	0.56	0.36	0.86	0.77	0.58	0.37	0.87	0.78	0.59	0.38
		ΔT	21	19	16	11	21	20	16	11	21	20	16	11	22	**20**	16	11	21	20	16	11	20	18	15	10
		kW	18.89	19.27	19.86	20.48	20.29	20.72	21.36	22.04	21.53	21.99	22.68	23.42	22.63	**23.11**	23.85	24.63	23.56	24.07	24.84	25.66	24.36	24.89	25.70	26.55
		Amps	35.8	36.4	37.3	38.4	38.0	38.7	39.7	40.9	40.5	41.3	42.4	43.7	42.7	**43.6**	44.8	46.1	45.0	45.9	47.1	48.6	47.1	48.1	49.4	51.0
		HI PR	267	288	304	317	300	323	341	356	341	367	388	405	389	**418**	442	461	437	471	497	518	483	520	549	573
		LO PR	107	114	124	132	113	120	131	139	117	125	136	145	123	**131**	143	152	129	137	150	160	133	142	155	165

IDB: Entering Indoor Dry Bulb Temperature

Shaded area reflects ACCA (TVA) Rating Conditions.

kW = Total system power

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

Amps: Unit amps (comp.+ evaporator + condenser fan motors)

Design Subcooling, 16-19 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 8-12°F @ the compressor suction access fitting connection.

Expanded Cooling Data — 25 Tons (Standard Motor)

			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	6869	MBh	251.8	257.3	274.9	293.8	245.9	251.3	268.5	287.0	240.1	245.3	262.1	280.2	234.2	239.3	255.7	273.3	222.5	227.3	242.9	259.7	206.1	210.6	225.0	240.5
		S/T	0.77	0.72	0.58	0.4	0.79	0.74	0.61	0.45	0.81	0.76	0.62	0.5	0.84	0.79	0.64	0.48	0.87	0.82	0.67	0.5	0.88	0.82	0.67	0.50
		ΔT	26	25	22	17	26	25	22	17	26	25	22	17	26	25	22	18	26	25	22	17	24	23	20	16
		kW	18.68	19.07	19.65	20.3	20.07	20.49	21.12	21.79	21.29	21.74	22.43	23.2	22.37	22.85	23.58	24.35	23.29	23.79	24.56	25.4	24.08	24.60	25.40	26.24
		Amps	35.4	36.1	37.0	38.0	37.6	38.3	39.3	40.4	40.1	40.9	42.0	43.2	42.3	43.1	44.3	45.6	44.5	45.4	46.6	48.1	46.6	47.6	48.9	50.4
		HI PR	264	284	300	312.6	296	318	336	351	337	362	382	398.9	383	412	436	454	431	464	490	511.1	476	513	541	565
		LO PR	105	112	122	130.2	111	118	129	138	116	123	134	142.9	121	129	141	150	127	135	148	157.3	132	140	153	163
	7632	MBh	255.6	261.2	279.0	298.3	249.7	255.1	272.6	291.4	243.7	249.0	266.1	284.4	237.8	243.0	259.6	277.5	225.9	230.8	246.6	263.6	209.2	213.8	228.4	244.2
		S/T	0.79	0.74	0.61	0.5	0.82	0.77	0.63	0.47	0.84	0.79	0.64	0.5	0.87	0.82	0.66	0.50	0.90	0.85	0.69	0.5	0.91	0.85	0.70	0.52
		ΔT	24	23	20	16	25	24	21	16	25	24	21	16	25	24	21	17	25	24	20	16	23	22	19	15
		kW	18.93	19.32	19.91	20.5	20.34	20.77	21.41	22.09	21.58	22.04	22.74	23.5	22.68	23.17	23.91	24.69	23.61	24.13	24.91	25.7	24.42	24.95	25.77	26.62
		Amps	35.8	36.5	37.4	38.5	38.1	38.8	39.8	40.9	40.6	41.4	42.5	43.8	42.8	43.7	44.9	46.2	45.1	46.0	47.2	48.7	47.2	48.2	49.5	51.1
		HI PR	268	289	305	318.0	301	324	342	357	342	368	389	405.8	390	420	443	462	439	472	498	519.9	485	522	551	574
		LO PR	107	114	124	132.4	113	120	131	140	118	125	137	145.4	123	131	143	153	129	138	150	160.1	134	142	155	166
	8395	MBh	259.4	265.1	283.2	302.8	253.4	258.9	276.6	295.7	247.4	252.8	270.1	288.7	241.3	246.6	263.5	281.6	229.3	234.3	250.3	267.6	212.4	217.0	231.8	247.8
		S/T	0.83	0.78	0.63	0.5	0.86	0.81	0.66	0.49	0.88	0.83	0.67	0.5	0.91	0.85	0.69	0.52	0.94	0.89	0.72	0.5	0.95	0.89	0.73	0.54
		ΔT	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	22	21	18	15
		kW	19.03	19.42	20.02	20.6	20.45	20.88	21.53	22.22	21.70	22.17	22.87	23.6	22.81	23.30	24.05	24.84	23.75	24.27	25.05	25.9	24.56	25.10	25.92	26.78
		Amps	36.0	36.7	37.6	38.7	38.2	39.0	40.0	41.2	40.8	41.6	42.7	44.0	43.1	43.9	45.1	46.5	45.3	46.2	47.5	49.0	47.5	48.5	49.8	51.4
		HI PR	270	291	307	320.2	303	326	344	359	345	371	392	408.6	393	423	446	465	442	475	502	523.6	488	525	555	578
		LO PR	108	115	125	133.3	114	121	132	141	118	126	137	146.4	124	132	144	154	130	139	151	161.2	135	143	157	167
85	6869	MBh	256.2	261.1	273.5	291.8	250.2	255.0	267.1	285.0	244.2	249.0	260.8	278.2	238.3	242.9	254.4	271.4	226.4	230.8	241.7	257.8	209.7	213.8	223.9	238.8
		S/T	0.80	0.77	0.70	0.57	0.83	0.80	0.72	0.59	0.85	0.82	0.74	0.60	0.88	0.85	0.77	0.62	0.91	0.88	0.80	0.65	0.92	0.89	0.80	0.65
		ΔT	28	27	26	22	28	27	26	22	28	27	26	22	28	28	26	23	28	27	26	22	26	25	24	21
		kW	18.83	19.21	19.80	20.41	20.23	20.65	21.29	21.97	21.46	21.92	22.61	23.34	22.55	23.04	23.77	24.55	23.48	23.99	24.76	25.58	24.28	24.81	25.61	26.46
		Amps	35.7	36.3	37.2	38.3	37.9	38.6	39.6	40.7	40.4	41.2	42.3	43.6	42.6	43.4	44.6	46.0	44.8	45.7	47.0	48.4	47.0	47.9	49.3	50.8
		HI PR	266	287	303	316	299	322	340	354	340	366	386	403	387	417	440	459	436	469	495	516	481	518	547	570
		LO PR	106	113	123	131	112	119	130	139	117	124	136	144	123	130	142	152	128	137	149	159	133	141	154	164
	7632	MBh	260.1	265.1	277.6	296.2	254.0	258.9	271.2	289.3	248.0	252.8	264.7	282.4	241.9	246.6	258.3	275.5	229.8	234.3	245.4	261.8	212.9	217.0	227.3	242.5
		S/T	0.83	0.80	0.72	0.59	0.86	0.83	0.75	0.61	0.88	0.85	0.77	0.62	0.91	0.88	0.80	0.65	0.95	0.91	0.83	0.67	0.96	0.92	0.83	0.68
		ΔT	26	26	24	21	26	26	25	21	26	26	25	21	27	26	25	21	26	26	24	21	25	24	23	20
		kW	19.08	19.47	20.06	20.69	20.50	20.93	21.58	22.27	21.76	22.22	22.92	23.67	22.86	23.36	24.11	24.90	23.81	24.33	25.11	25.94	24.62	25.16	25.98	26.84
		Amps	36.1	36.7	37.7	38.8	38.3	39.0	40.1	41.2	40.9	41.7	42.8	44.1	43.2	44.0	45.2	46.6	45.4	46.3	47.6	49.1	47.6	48.6	49.9	51.5
		HI PR	271	292	308	321	304	327	345	360	346	372	393	410	394	424	448	467	443	477	503	525	490	527	556	580
		LO PR	108	115	126	134	114	122	133	141	119	126	138	147	125	133	145	154	131	139	152	162	135	144	157	167
	8395	MBh	264.0	269.1	281.8	300.6	257.8	262.8	275.3	293.7	251.7	256.6	268.7	286.7	245.5	250.3	262.1	279.7	233.3	237.8	249.0	265.7	216.1	220.3	230.7	246.1
		S/T	0.87	0.84	0.76	0.61	0.90	0.87	0.78	0.64	0.92	0.89	0.80	0.65	0.95	0.92	0.83	0.67	0.99	0.95	0.86	0.70	1.00	0.96	0.87	0.71
		ΔT	25	25	23	20	25	25	24	20	25	25	24	20	26	25	24	21	25	25	24	20	24	23	22	19
		kW	19.18	19.57	20.17	20.81	20.61	21.05	21.70	22.40	21.88	22.34	23.05	23.80	22.99	23.49	24.25	25.04	23.94	24.47	25.26	26.09	24.76	25.31	26.13	27.00
		Amps	36.3	36.9	37.9	39.0	38.5	39.2	40.3	41.5	41.1	41.9	43.0	44.3	43.4	44.2	45.4	46.8	45.6	46.6	47.8	49.3	47.9	48.8	50.2	51.8
		HI PR	273	294	310	323	306	329	348	363	348	375	396	413	397	427	451	470	446	480	507	529	493	530	560	584
		LO PR	109	116	126	135	115	122	134	142	120	127	139	148	126	134	146	155	132	140	153	163	136	145	158	168

IDB: Entering Indoor Dry Bulb Temperature

Shaded area reflects AHRI Rating Conditions.

kW = Total system power

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

Amps: Unit amps (comp.+ evaporator + condenser fan motors)

Design Subcooling, 16-19 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat 8-12°F @ the compressor suction access fitting connection.

GCG 25 Tons — Standard Static

Turns Open	0		1		2		3		4		5		6	
RPM	1051		1019		986		954		922		911		857	
ESP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP
0.2	....	....	....	....	9,202	5.994	8,745	5.235	8,267	4.603	8,052	4.347	7,496	3.800
0.4	....	....	9,002	6.246	8,631	5.645	8,168	5.003	7,562	4.262	7,456	4.058	6,877	3.498
0.6	8,828	6.448	8,468	5.901	8,093	5.304	7,622	4.705	6,904	3.843	6,754	3.735	....	....
0.8	8,359	6.101	7,956	5.554	7,434	4.905	6,845	4.224	....	....	....	....	....	....
1	7,807	5.722	7,370	5.172	6,917	4.592	....	....	....	....	....	....	....	....
1.2	7,255	5.362	6,762	4.814	....	....	....	....	....	....	....	....	....	....

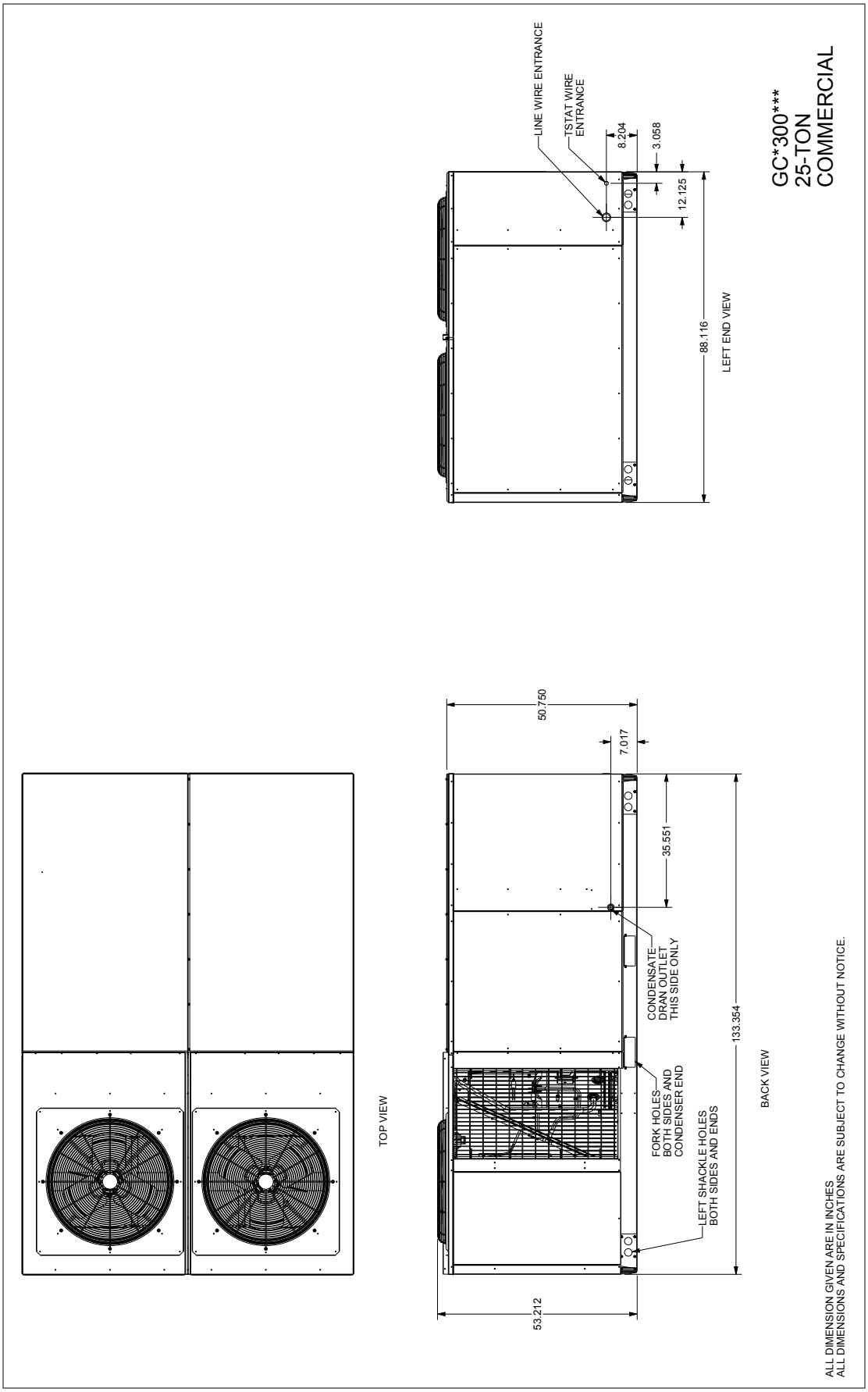
GCG 25 Tons — High Static

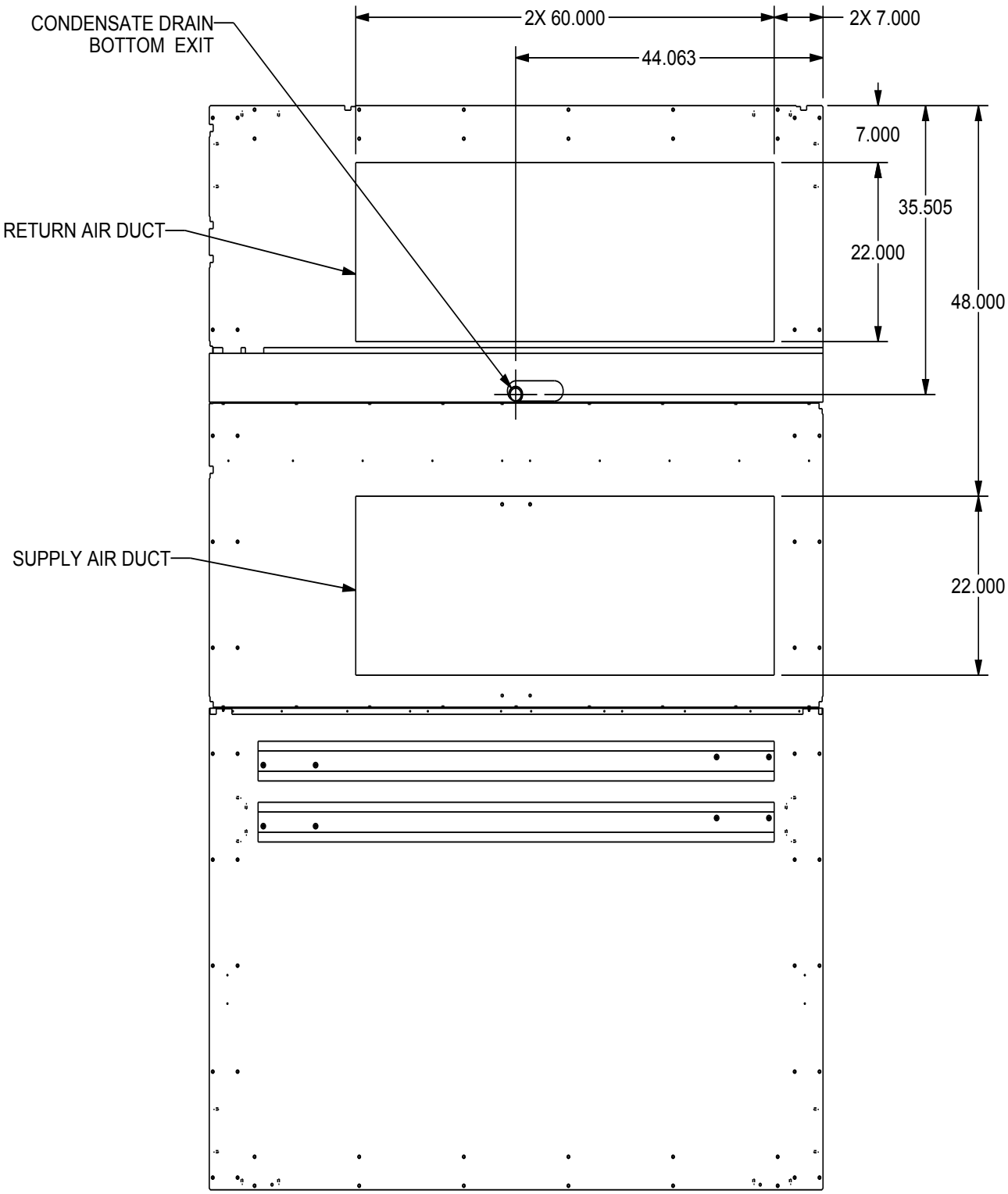
Turns Open	0		1		2		3		4		5		6	
RPM	1284		1242		1200		1162		1123		1085		1047	
ESP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP
1	---	---	---	---	---	---	9,001	6.829	8,394	6.009	7,797	4.781	7,227	4.276
1.2	---	---	---	---	8,891	6.828	8,262	6.150	7,632	5.353	7,012	4.197	---	---
1.4	---	---	8,811	6.864	8,148	6.151	7,495	5.481	6,841	4.708	---	---	---	---
1.6	---	---	8,065	6.188	7,377	5.483	---	---	---	---	---	---	---	---
1.8	7,998	6.886	7,290	5.521	---	---	---	---	---	---	---	---	---	---
2	7,221	6.102	---	---	---	---	---	---	---	---	---	---	---	---

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.

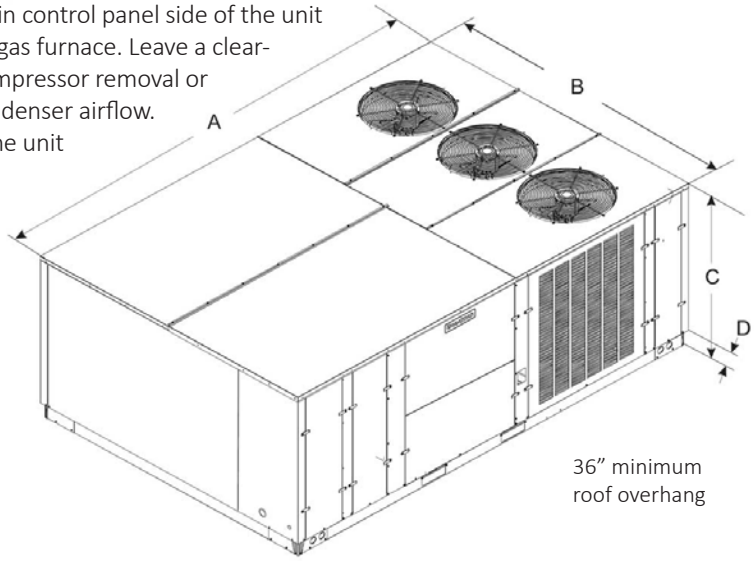
Airflow Pressure Drop of Downflow Economizer for 15- to 25-Ton Rooftop Units (100% Return Air												
CFM	4,500	5,000	5,500	6,000	6,500	7,000	7,500	8,000	8,500	9,000	9,500	10,000
(In. WG)	0.15	0.18	0.22	0.27	0.32	0.37	0.42	0.48	0.55	0.61	0.69	0.76


LINE WIRE ENTRANCE
TSTAT WIRE ENTRANCE
8.204
3.058
12.125
88.116
LEFT END VIEW
GC*300***
25-TON
COMMERCIAL
50.750
7.017
35.551
CONDENSATE DRAN OUTLET THIS SIDE ONLY
133.354
FORK HOLES BOTH SIDES AND CONDENSER END
LEFT SHACKLE HOLES BOTH SIDES AND ENDS
53.212
BACK VIEW
TOP VIEW
ALL DIMENSION GIVEN ARE IN INCHES
ALL DIMENSIONS AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

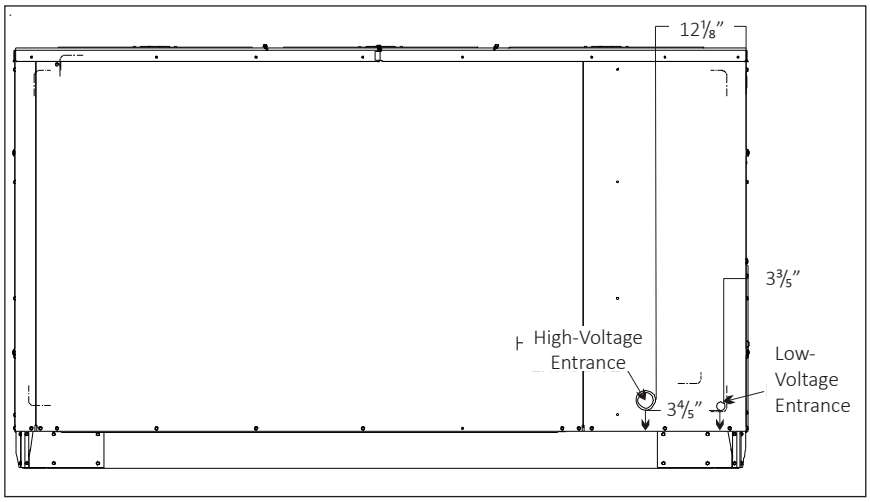


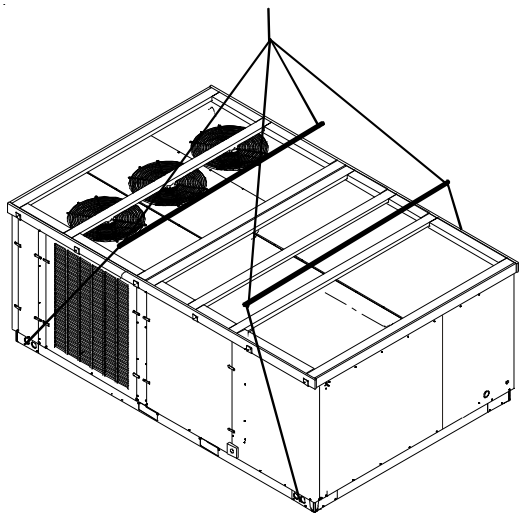
BASE PAN VIEW
(VIEWED FROM TOP DOWN)

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





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.

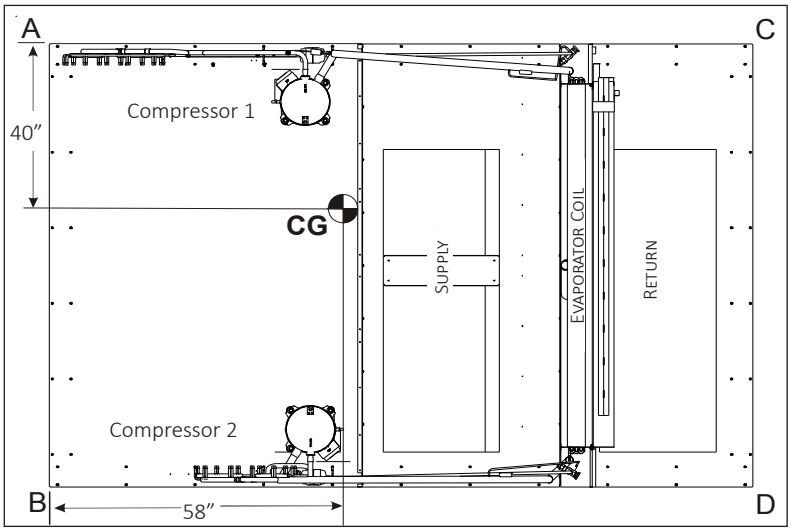
Lower unit carefully onto roof mounting curb. While rigging the unit, the center of gravity will cause the condenser end to be lower than the supply air end.

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.

To assist in determining rigging requirements, unit weights are shown below.

25-Ton Units	Weights (lbs.)
Weight A	627
Weight B	525
Weight C	604
Weight D	521
Shipping Weight	2513
Operating Weight	2283

Note: These weights are calculated without installed accessories.



Corner & Center-of-Gravity Locations

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

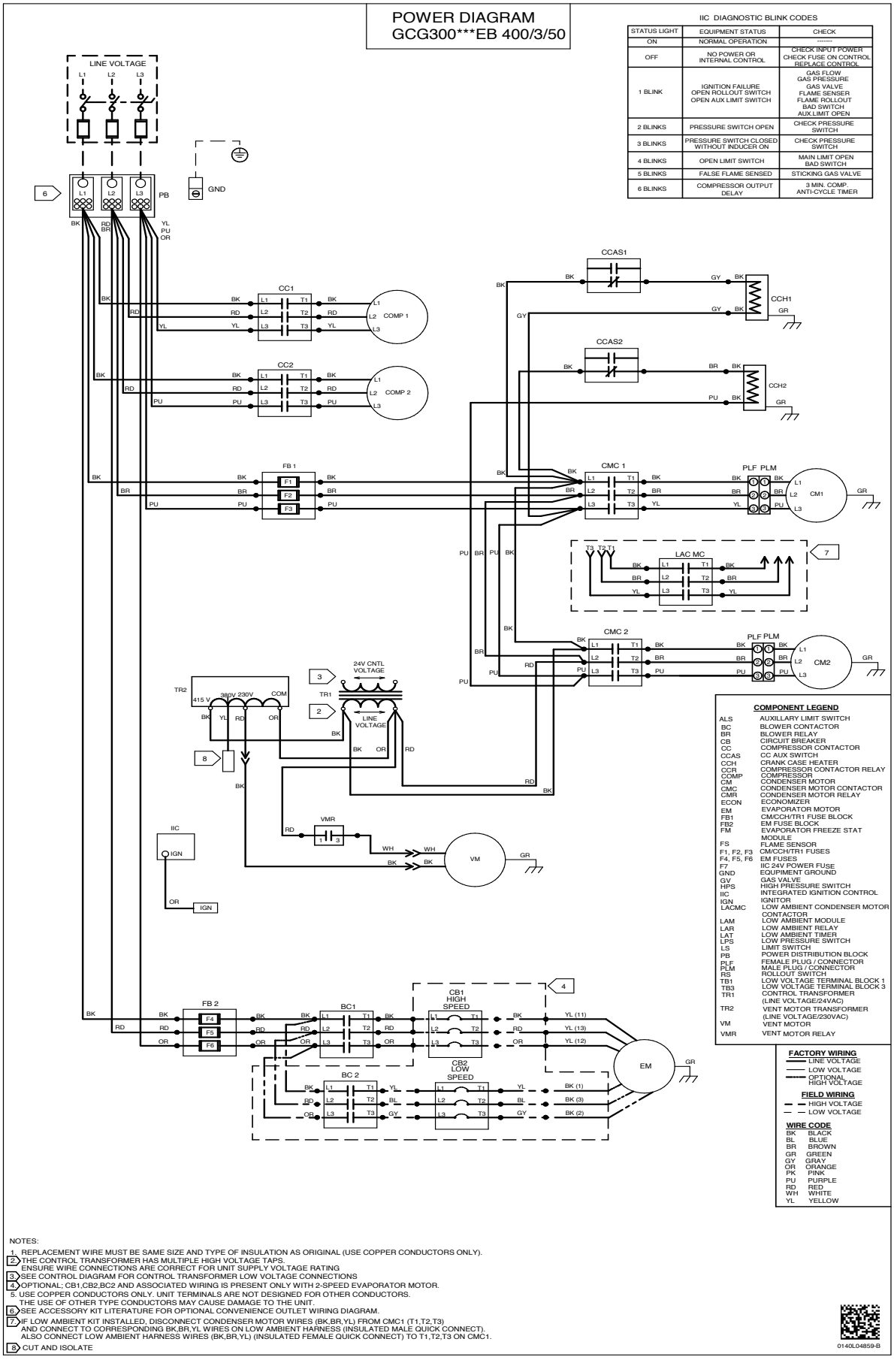
Proper unit installation requires that the roof curb be firmly and permanently attached to the roof structure. Check for adequate fastening method prior to setting the unit on the curb.

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.



IIC DIAGNOSTIC BLINK CODES

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 SENSER 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

COMPONENT LEGEND

ALS	AUXILLARY LIMIT SWITCH
BC	BLOWER CONTACTOR
BR	BLOWER RELAY
CB	CIRCUIT BREAKER
CC	COMPRESSOR CONTACTOR
CCAS	CC AUX SWITCH
CCH	CRANK CASE HEATER
CCR	COMPRESSOR CONTACTOR RELAY
COMP	COMPRESSOR
CM	CONDENSER MOTOR
CMC	CONDENSER MOTOR CONTACTOR
CMR	CONDENSER MOTOR RELAY
ECON	ECONOMIZER
EM	EVAPORATOR MOTOR
FB1	CM/CCH/TR1 FUSE BLOCK
FB2	EM FUSE BLOCK
FM	EVAPORATOR FREEZE STAT MODULE
FS	FLAME SENSOR
F1, F2, F3	CM/CCH/TR1 FUSES
F4, F5, F6	EM FUSES
F7	IIC 24V POWER FUSE
GND	EQUIPMENT GROUND
GV	GAS VALVE
HPS	HIGH PRESSURE SWITCH
IIC	INTEGRATED IGNITION CONTROL
IGN	IGNITOR
LACMC	LOW AMBIENT CONDENSER MOTOR CONTACTOR
LAM	LOW AMBIENT MODULE
LAR	LOW AMBIENT RELAY
LAT	LOW AMBIENT TIMER
LPS	LOW PRESSURE SWITCH
LS	LIMIT SWITCH
PB	POWER DISTRIBUTION BLOCK
PLF	FEMALE PLUG / CONNECTOR
PLM	MALE PLUG / CONNECTOR
RS	ROLLOUT SWITCH
TB1	LOW VOLTAGE TERMINAL BLOCK 1
TB3	LOW VOLTAGE TERMINAL BLOCK 3
TR1	CONTROL TRANSFORMER (LINE VOLTAGE/24VAC)
TR2	VENT MOTOR TRANSFORMER (LINE VOLTAGE/230VAC)
VM	VENT MOTOR
VMR	VENT MOTOR RELAY

FACTORY WIRING
- LINE VOLTAGE
- LOW VOLTAGE
- OPTIONAL HIGH VOLTAGE

FIELD WIRING
- HIGH VOLTAGE
- LOW VOLTAGE

WIRE CODE

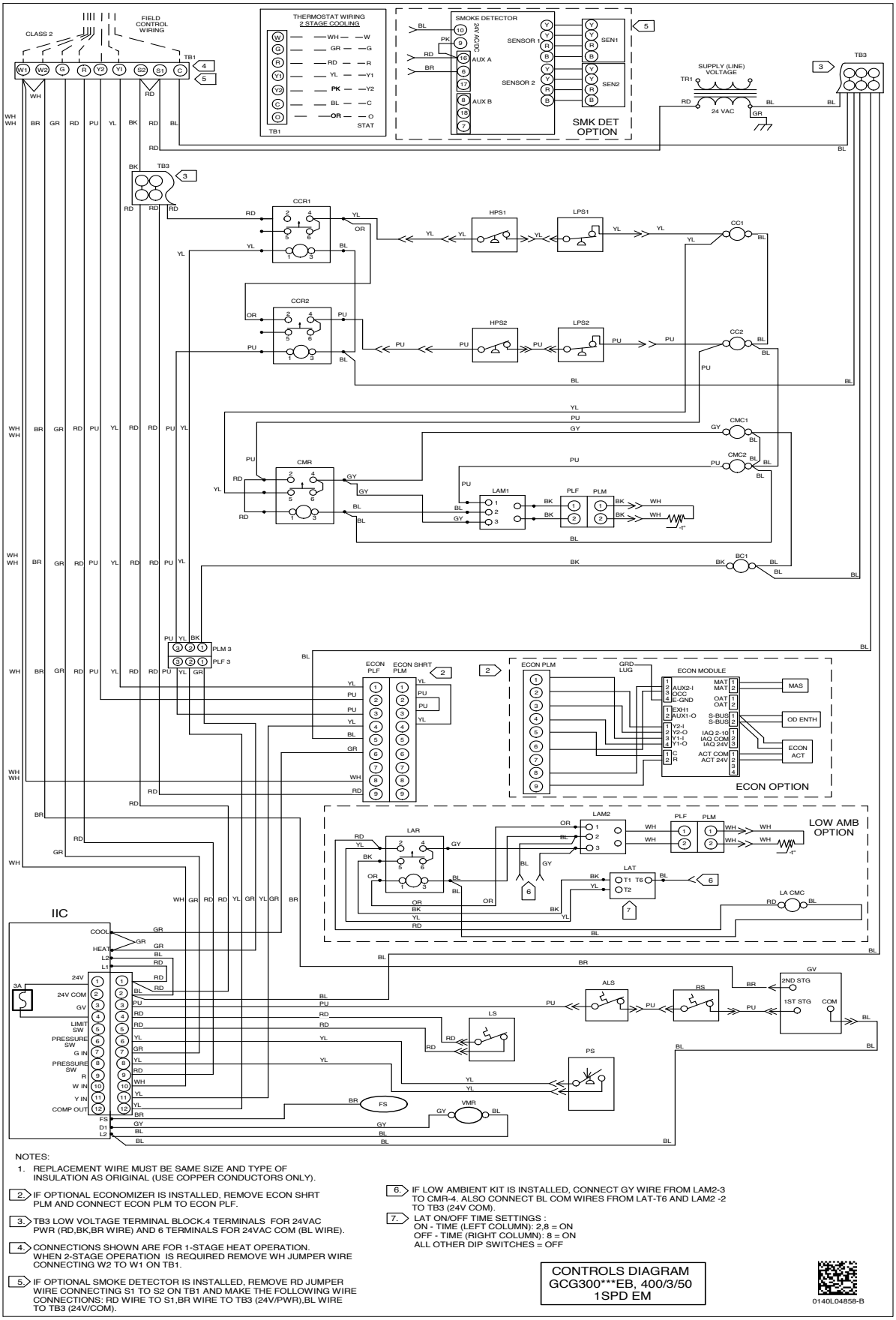
BK	BLACK
BL	BLUE
BR	BROWN
GR	GREEN
GY	GRAY
OR	ORANGE
PK	PINK
PU	PURPLE
RD	RED
WH	WHITE
YL	YELLOW

NOTES:

1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (USE COPPER CONDUCTORS ONLY).
2. THE CONTROL TRANSFORMER HAS MULTIPLE HIGH VOLTAGE TAPS. ENSURE WIRE CONNECTIONS ARE CORRECT FOR UNIT SUPPLY VOLTAGE RATING
3. SEE CONTROL DIAGRAM FOR CONTROL TRANSFORMER LOW VOLTAGE CONNECTIONS
4. OPTIONAL; CB1,CB2,BC2 AND ASSOCIATED WIRING IS PRESENT ONLY WITH 2-SPEED EVAPORATOR MOTOR.
5. USE COPPER CONDUCTORS ONLY. UNIT TERMINALS ARE NOT DESIGNED FOR OTHER CONDUCTORS. THE USE OF OTHER TYPE CONDUCTORS MAY CAUSE DAMAGE TO THE UNIT.
6. SEE ACCESSORY KIT LITERATURE FOR OPTIONAL CONVENIENCE OUTLET WIRING DIAGRAM.
7. IF LOW AMBIENT KIT INSTALLED, DISCONNECT CONDENSER MOTOR WIRES (BK,BR,YL) FROM CMC1 (T1,T2,T3) AND CONNECT TO CORRESPONDING BK,BR,YL WIRES ON LOW AMBIENT HARNESS (INSULATED MALE QUICK CONNECT). ALSO CONNECT LOW AMBIENT HARNESS WIRES (BK,BR,YL) (INSULATED FEMALE QUICK CONNECT) TO T1,T2,T3 ON CMC1.
8. CUT AND ISOLATE

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.

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



NOTES:

1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (USE COPPER CONDUCTORS ONLY).

2. IF OPTIONAL ECONOMIZER IS INSTALLED, REMOVE ECON SHRT PLM AND CONNECT ECON PLM TO ECON PLF.

3. TB3 LOW VOLTAGE TERMINAL BLOCK.4 TERMINALS FOR 24VAC PWR (RD,BK,BR WIRE) AND 6 TERMINALS FOR 24VAC COM (BL WIRE).

4. CONNECTIONS SHOWN ARE FOR 1-STAGE HEAT OPERATION. WHEN 2-STAGE OPERATION IS REQUIRED REMOVE WH JUMPER WIRE CONNECTING W2 TO W1 ON TB1.

5. IF OPTIONAL SMOKE DETECTOR IS INSTALLED, REMOVE RD JUMPER WIRE CONNECTING S1 TO S2 ON TB1 AND MAKE THE FOLLOWING WIRE CONNECTIONS: RD WIRE TO S1,BR WIRE TO TB3 (24V/PWR),BL WIRE TO TB3 (24V/COM).

6. IF LOW AMBIENT KIT IS INSTALLED, CONNECT GY WIRE FROM LAM2-3 TO CMR-4. ALSO CONNECT BL COM WIRES FROM LAT-T6 AND LAM2 -2 TO TB3 (24V COM).

7. LAT ON/OFF TIME SETTINGS :
ON - TIME (LEFT COLUMN): 2,8 = ON
OFF - TIME (RIGHT COLUMN): 8 = ON
ALL OTHER DIP SWITCHES = OFF

CONTROLS DIAGRAM
GCG300***EB, 400/3/50
1SPD EM

0140L04858-B

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.

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

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