

PRODUCT SPECIFICATIONS

PGB COMMERCIAL SERIES 10 SEER

Packaged Gas & Electrical Commercial Air Conditioner

7½ to 15 Ton

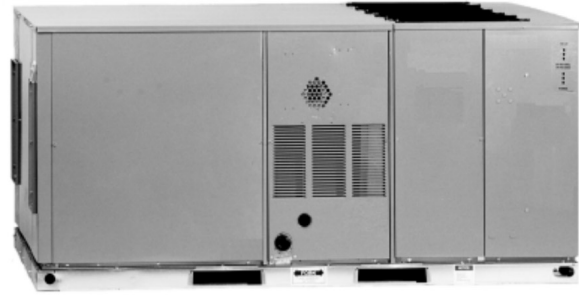
Cooling Capacity: 88,000 to 172,000 BTUH

Heating Input: 136,000 to 280,000 BTUH



Goodman®

Air Conditioning & Heating



The PGB commercial packaged gas and electric air conditioner is designed for over/under or downflow applications.

Standard Features

- Dual high-efficiency scroll compressors with internal motor protection (2-stage cooling; three compressors on 15 ton)
- Compressor grommets for vibration isolation
- Time delay for compressors' sequence
- Fully charged R-22 systems
- High- and low-pressure controls on all systems
- Mild ambient switch
- Two independent condenser coils for 2-stage operation
- Totally enclosed, permanently lubricated outdoor fan motors
- Vertical discharge with removable grilles provide easy access to fans and motors
- Enhanced copper tube aluminum fin coils
- Expansion valve evaporator coil
- Galvanized steel, powder-coated drain pan with 3/4" NPT condensate connection
- Belt-driven variable-pitch sheave permits multi-speed adjustment
- Centrifugal fan for quiet and efficient operation
- Built-in filter rack (2" disposable filters provided)
- Control box and compressors easily accessible from side access panels
- Factory wiring is conveniently arranged for accessory installation
- Two-stage heating
- Combination redundant gas valve and regulator
- Heavy-gauge, aluminized tubular steel heat exchanger cells
- Power-assisted combustion
- Integrated DSI Ignition Control

Cabinet Construction

- Heavy-gauge, zinc-coated steel cabinet with weather-resistant powder-paint finish
- Fully insulated with blankets of insulation
- Base rails with fork slots for easier handling and added rigidity
- When properly anchored, meets the 2001 Florida Building Code unit integrity requirements for hurricane-type winds

Accessories

- Room thermostat
- Rooftop Lift Kit
- Low ambient control
- Roof curb
- Horizontal Duct Kit
- L.P. Kit
- Economizers (horizontal and vertical)
- Panel Louver Kit
- Manual fresh air damper
- Motorized fresh air damper



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Dimensional Data

All dimensions in inches; no scale.

Figure 1. Vertical discharge

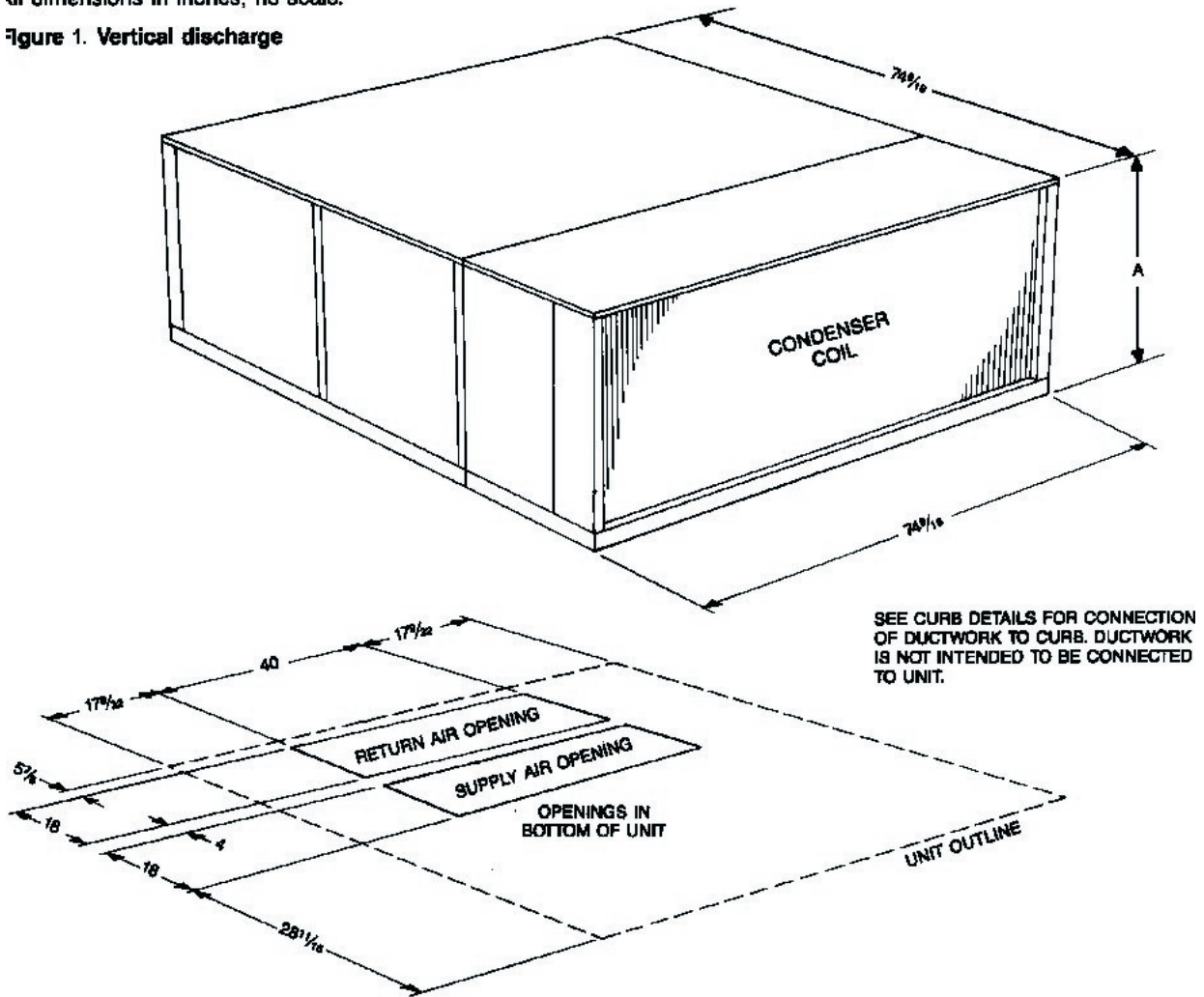
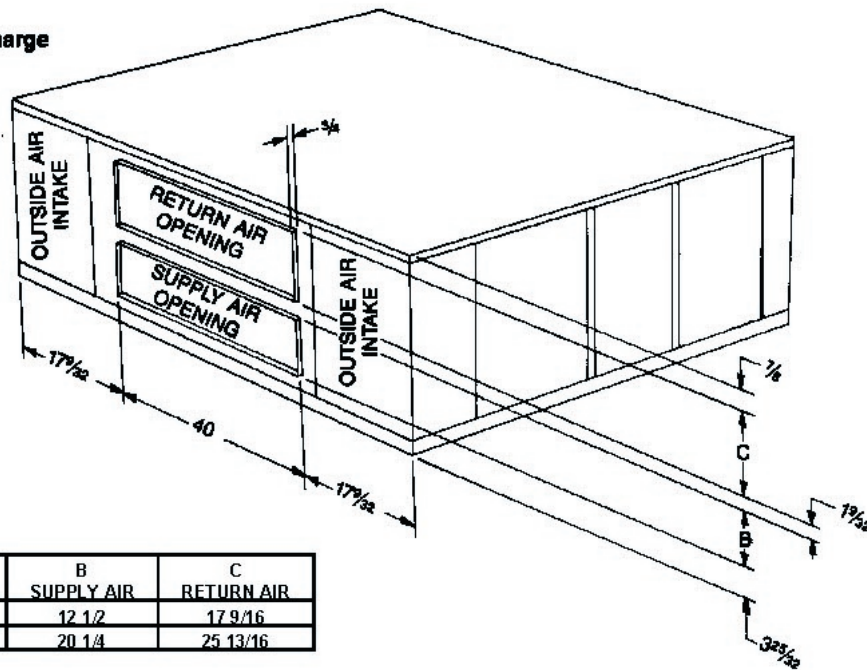


Figure 2. Horizontal discharge

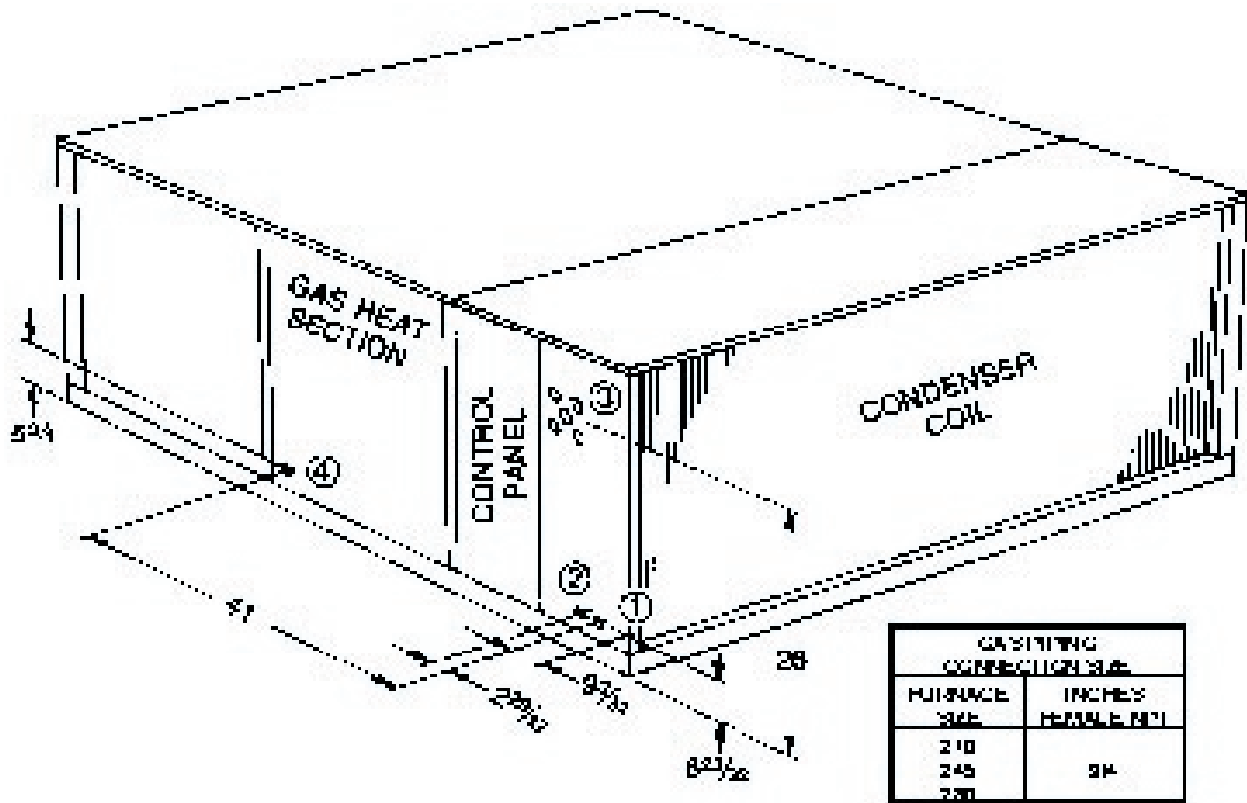


UNIT SIZE PGB	A HEIGHT	B SUPPLY AIR	C RETURN AIR
090, 120	36	12 1/2	17 9/16
120, 150 & 180	52	20 1/4	25 13/16

PRODUCT SPECIFICATIONS

Dimensional Data - Gas & Electrical Connections

Figure 3. Gas heat units



- ① MAIN POWER ENTRANCE LOCATION
- ② CONTROL WIRING ENTRANCE LOCATION
- ③ OPTIONAL FIELD INSTALLED INTERNAL DISCONNECT SWITCH
- ④ GAS PIPING ENTRANCE LOCATION

PRODUCT SPECIFICATIONS

Specifications

	PGB090210-3	PGB090210-4	PGB102210-3	PGB102210-4	PGB120245-3	PGB120245-4
Total Cooling-BTUH	88,000	88,000	100,000	100,000	118,000	118,000
Sens. Cooling-BTUH (1)*	70,000	70,000	77,000	77,000	85,000	85,000
EERa (2)	9.0	9.0	9.0	9.0	9.0	9.0
IPLV (3)	9.3	9.3	9.3	9.3	9.3	9.3
Max. Heating Input	210,000	210,000	210,000	210,000	245,000	245,000
Min. Heating Input (4)	136,000	136,000	136,000	136,000	166,600	166,600
Output Capacity	163,800	163,800	163,800	163,800	189,900	189,900
Steady State Eff.	78%	78%	78%	78%	78%	78%
Temp. Rise Range	35-65	35-65	30-60	30-60	30-60	30-60
Indoor Blower (Qty.)	2	2	2	2	2	2
Type	Belt	Belt	Belt	Belt	Belt	Belt
Size - D x W	12 x 12	12 x 12	12 x 12	12 x 12	12 x 15	12 x 15
Motor H.P.	1 1/2	1 1/2	2	2	3	3
Indoor CFM Nominal	3000	3000	3400	3400	4000	4000
Evaporator Coil (Qty.)	1	1	1	1	1	1
Face Area (ft2)	9.3	9.3	9.3	9.3	14.0	14.0
Rows / FPI	2 / 16	2 / 16	3 / 16	3 / 16	2 / 16	2 / 16
Tube Dia. / Material	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper
Filters Size & Qty.					(3) 16 x 25 x 2	(3) 16 x 25 x 2
	(3) 25 x 25 x 2	(3) 25 x 25 x 2	(3) 25 x 25 x 2	(3) 25 x 25 x 2	(3) 20 x 25 x 2	(3) 20 x 25 x 2
Outdoor Fan (Qty.)	2	2	2	2	2	2
Fan Dia. (In.)	24	24	24	24	24	24
Motor H.P.	1/2	1/2	1/2	1/2	1/2	1/2
Outdoor CFM Nominal	5500	5500	5500	5500	6400	6400
Condenser Coil (Qty.)	1	1	1	1	1	1
Face Area (Total ft2)	15.6	15.6	15.6	15.6	23.8	23.8
Rows / FPI	2 / 21	2 / 21	2/21	2/21	2 / 21	2 / 21
Tube Dia. / Material	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper
Electrical						
Ph	3	3	3	3	3	3
Volts	208/230	460	208/230	460	208/230	460
Compr.'s RLA	12.8	6.4	13.5	6.7	18.6	8.9
Compr.'s LRA	91.0	46.0	115.0	47.5	128.0	63.0
Indoor Blw FLA	5.2	2.6	6.8	3.4	8.4	4.2
Outdoor Blw's FLA	3.5	1.7	3.5	1.7	3.5	1.7
Min. Circuit Amp.	44.2	22.0	49.4	23.6	61.9	29.8
Max. Fuse Size (5)	60	30	60	35	70	40
Net Weight	1040	1040	1080	1080	1330	1330
Shipping Weight	1060	1060	1100	1100	1350	1350

(1) Sensible capacity is gross, with no deduction for indoor motor heat

(2) BTU/Watt @ 80/67 F inside - 95 F outside air

(3) IPLV is integrated part load valve

(4) Minimum Input is first stage input

(5) HACR Breakers may be used in place of fuses up to 60 Amp.

PRODUCT SPECIFICATIONS

Specifications (cont.)

	PGB150245-3	PGB150245-4	PGB180280-3	PGB180280-4
Total Cooling-BTUH (6)	142,000	142,000	172,000	172,000
Sens. Cooling-BTUH (1)	119,000	119,000	137,000	137,000
EERa (2)	8.6	8.6	8.5	8.5
IPLV (3)	8.9	8.9	8.5	8.5
Max. Heating Input	245,000	245,000	280,000	280,000
Min. Heating Input (4)	166,600	166,600	187,600	187,600
Output Capacity	189,900	189,900	218,400	218,400
Steady State Eff.	78%	78%	78%	78%
Temp. Rise Range	15-45	15-45	20-50	20-50
Indoor Blower (Qty.)	2	2	2	2
Type	Belt	Belt	Belt	Belt
Size - D x W	12 x 15	12 x 15	12 x 15	12 x 15
Motor H.P.	5	5	5	5
Indoor CFM Nominal	5000	5000	5600	5600
Evaporator Coil (Qty.)	1	1	1	1
Face Area (ft ²)	14.0	14.0	14.0	14.0
Rows / FPI	3/16	3/16	3/16	3/16
Tube Dia. / Material	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper
Filters Size & Qty.	(3) 16 x 25 x 2	(3) 16 x 25 x 2	(3) 16 x 25 x 2	(3) 16 x 25 x 2
	(3) 20 x 25 x 2	(3) 20 x 25 x 2	(3) 20 x 25 x 2	(3) 20 x 25 x 2
Outdoor Fan (Qty.)	2	2	4	4
Fan Dia. (In.)	24	24	22	22
Motor H.P.	1/2	1/2	1/2	1/2
Outdoor CFM Nominal	6400	6400	8000	8000
Condenser Coil (Qty.)	1	1	1	1
Face Area (Total ft ²)	23.8	23.8	23.8	23.8
Rows / FPI	2/21	2/21	3/16	3/16
Tube Dia. / Material	3/8 / Copper	3/8 / Copper	3/8 / Copper	3/8 / Copper
Electrical				
Ph	3	3	3	3
Volts	208/230	460	208/230	460
Compr.'s RLA	18.7	9.0	18.6	8.9
Compr.'s LRA	156.0	70.0	128.0	63.0
Indoor Blw FLA	14.6	7.3	14.6	7.3
Outdoor Blw's FLA	3.5	1.7	3.5	1.7
Min. Circuit Amp.	68.4	33.2	98.4	47.5
Max. Fuse Size (5)	80	45	110	60
Net Weight	1380	1380	1565	1565
Shipping Weight	1400	1400	1585	1585

- (1) Sensible capacity is gross, with no deduction for indoor motor heat
- (2) BTU/Watt @ 80/67 F inside - 95 F outside air
- (3) IPLV is integrated part load valve
- (4) Minimum Input is first stage input
- (5) HACR Breakers may be used in place of fuses up to 60 Amp.
- (6) Deduct 2,000 Btuh for 208V operation

PRODUCT SPECIFICATIONS

Fan Performance Data

Figure 4. Fan curve - PGB 090

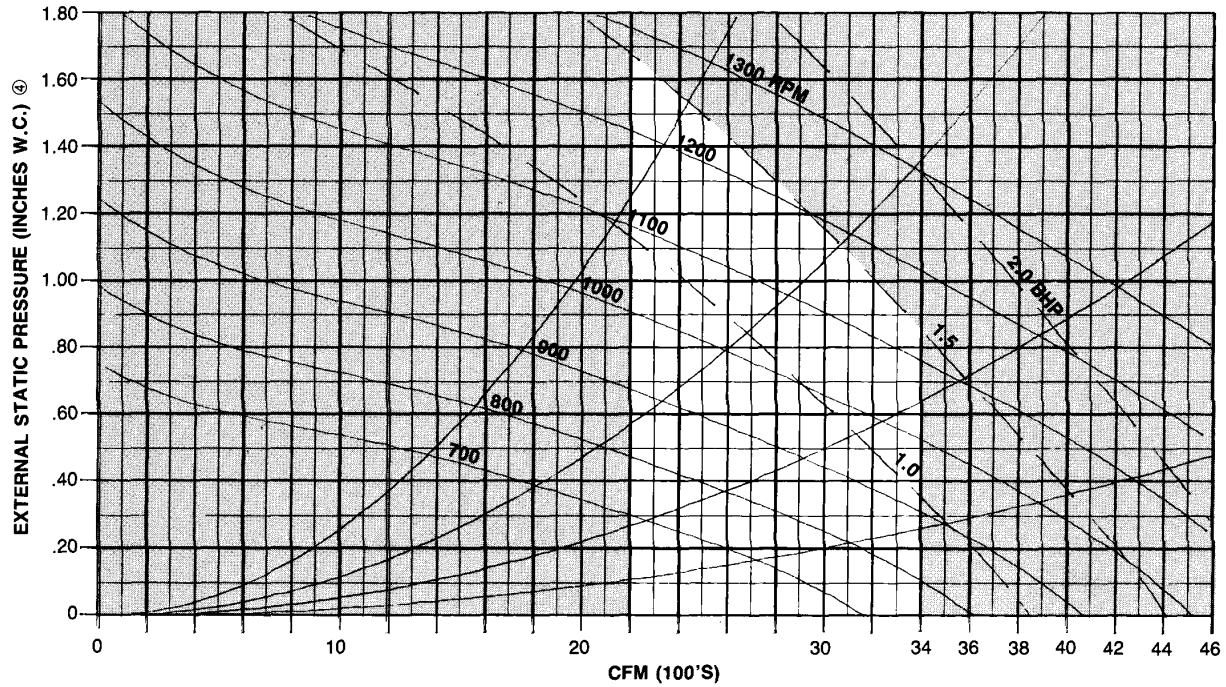


Table 1. Supply fan performance - PGB 090

CFM	EXTERNAL STATIC PRESSURE (INCHES W.C.) SEE NOTE (3)															
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2600	669	0.44	816	0.59	916	0.75	1004	0.92	1084	1.09	1157	1.28	1226	1.47	1291	1.67
2800	734	0.53	847	0.69	944	0.85	1030	1.03	1109	1.21	1181	1.40	1249	1.60	1312	1.91
3000	770	0.62	877	0.79	973	0.97	1053	1.15	1135	1.34	1206	1.54	1273	1.75	1336	1.96
3200	807	0.73	909	0.91	1002	1.10	1086	1.29	1162	1.49	1232	1.70	1298	1.91	1360	2.12
3400	845	0.85	942	1.04	1032	1.24	1114	1.44	1159	1.65	1259	1.87	1324	2.09	1384	2.31

NOTES:

DO NOT SELECT IN SHADED AREAS (FOR INTERPOLATION ONLY)

1. Selections in **BOLD ITALICS** require a field drive change. See Table 2 below for drive ranges.
2. Maximum fan RPM = 1500
3. Table includes all internal pressure drops including cabinet losses. See Table 9 for additional pressure drops that must be considered as part of external static pressure drop.

Table 2. Supply fan drive data - PGB 090

		MOTOR SHEAVE - ADJUSTABLE			FACTORY SETTING		
		FAN SHEAVE - FIXED			2 TURNS OPENS		
MOTOR SHEAVE TURNS OPEN		0	1	2	3	4	5
FAN RPM	1.5 HP MOTOR	1209	1146	1082	1018	955	891

NOTE: Allow ±5% variation in blower rpm due to pulley manufacturing tolerances

PRODUCT SPECIFICATIONS

Fan Performance Data (cont.)

Figure 5. Fan curve - PGB 102

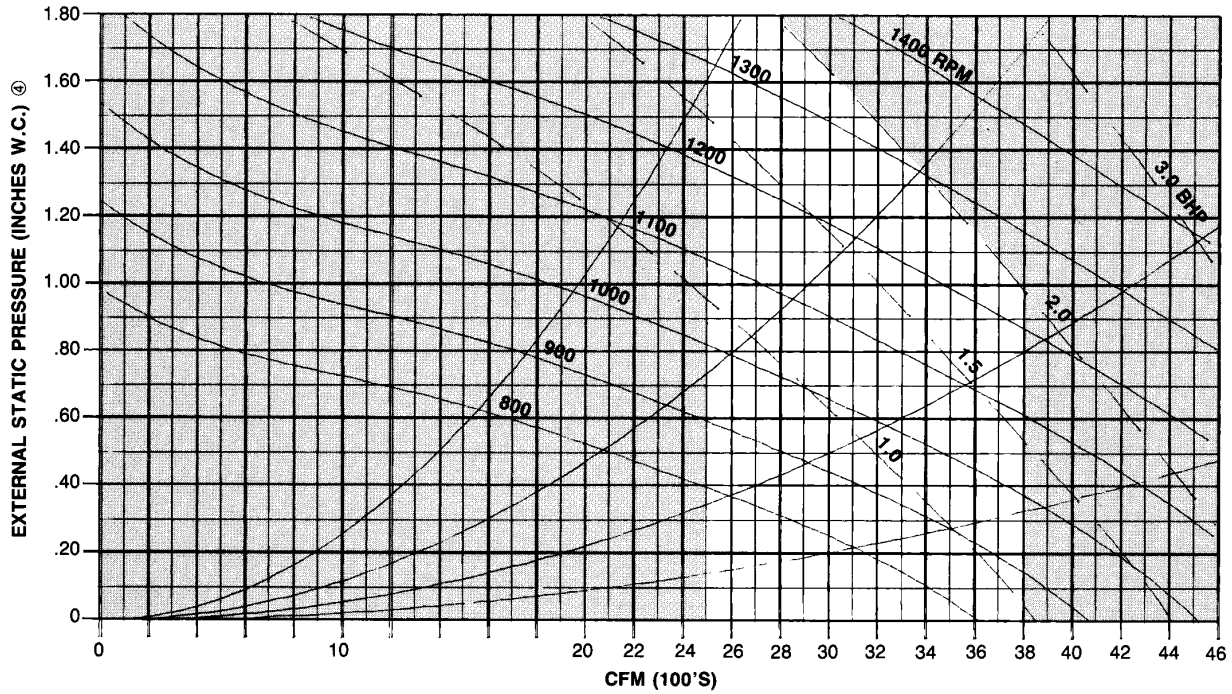


Table 3. Supply Performance - PGB 102

CFM	EXTERNAL STATIC PRESSURE (INCHES W.C.) SEE NOTE (3)															
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	770	0.62	877	0.79	973	0.97	1053	1.15	1135	1.34	1206	1.54	1273	1.75	1336	1.96
3200	807	0.73	909	0.91	1002	1.10	1086	1.29	1162	1.49	1232	1.70	1298	1.91	1360	2.12
3400	845	0.85	942	1.04	1032	1.24	1114	1.44	1189	1.65	1259	1.87	1324	2.09	1384	2.31
3600	884	0.99	976	1.19	1063	1.40	1144	1.61	1217	1.83	1285	2.05	1349	2.28	1410	2.51
3800	923	1.14	1010	1.35	1095	1.57	1173	1.79	1246	2.02	1313	2.25	1376	2.48	1436	2.73

NOTES:

 DO NOT SELECT IN SHADED AREAS (FOR INTERPOLATION ONLY)

1. Selections in **BOLD ITALICS** require a field drive change. See Table 4 below for drive ranges.
2. Maximum fan RPM = 1500
3. Table includes all internal pressure drops including cabinet losses. See Table 9 for additional pressure drops that must be considered as part of external static pressure drop.

Table 4. Supply fan drive data - PGB 102

MOTOR SHEAVE - ADJUSTABLE		FACTORY SETTING					
FAN SHEAVE - FIXED		2 TURNS OPENS					
MOTOR SHEAVE TURNS OPEN		0	1	2	3	4	5
FAN RPM	2.0 HP MOTOR	1351	1290	1228	1167	1105	1044

NOTE: Allow ±5% variation in blower rpm due to pulley manufacturing tolerances.

PRODUCT SPECIFICATIONS

Fan Performance Data (cont.)

Figure 6. Fan curve - PGB 120

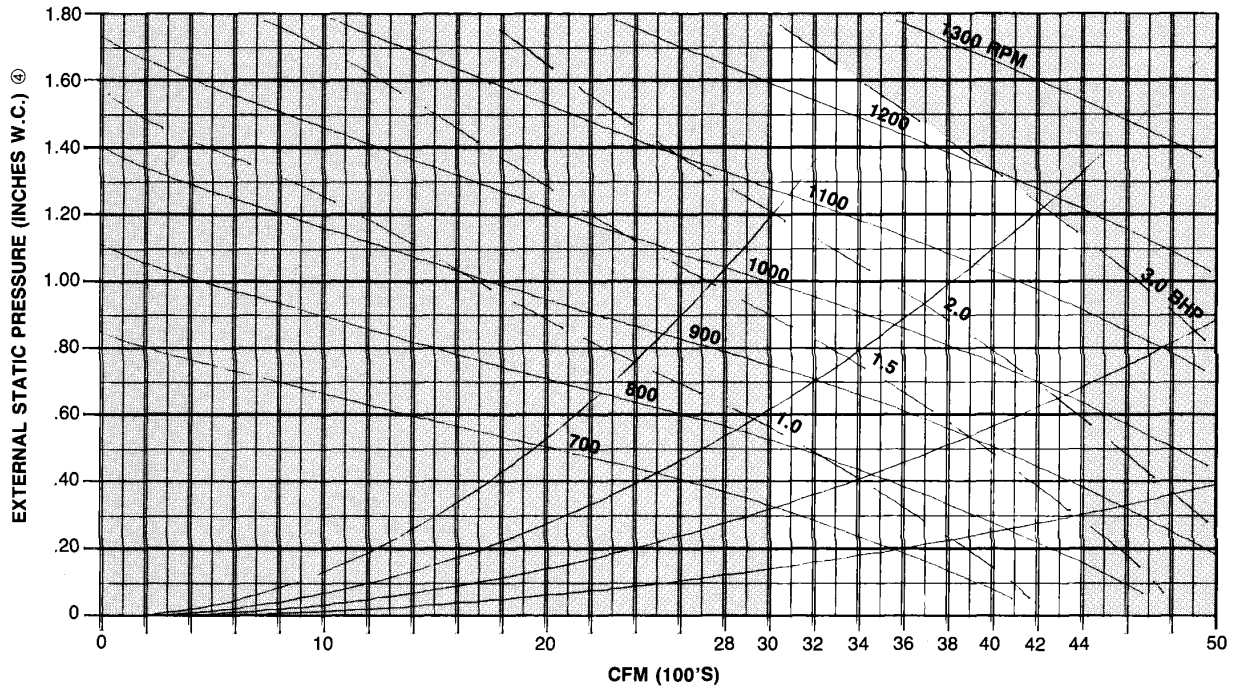


Table 5. Supply fan performance - PGB 120

CFM	EXTERNAL STATIC PRESSURE (INCHES W.C.) SEE NOTE (3)															
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3400	679	0.73	781	0.98	873	1.26	957	1.58	1034	1.91	1105	2.26	1171	2.26	1233	2.99
3600	706	0.83	805	1.10	894	1.39	975	1.71	1051	2.05	1121	2.41	1188	2.78	1249	3.17
3800	733	0.95	829	1.23	916	1.53	995	1.85	1069	2.20	1139	2.57	1204	2.95	1266	3.36
4000	761	1.07	855	1.37	938	1.68	1016	2.01	1088	2.36	1156	2.74	1221	3.14	1282	3.55
4200	790	1.21	880	1.52	961	1.84	1037	2.18	1108	2.54	1175	2.93	1239	3.33	1299	3.75
4400	818	1.36	906	1.68	985	2.01	1059	2.36	1128	2.73	1194	3.13	1257	3.54	1316	3.97

NOTES:

 DO NOT SELECT IN SHADED AREAS (FOR INTERPOLATION ONLY)

1. Selections in **BOLD ITALICS** require a field drive change. See Table 6 below for drive ranges.
2. Maximum fan RPM = 1500
3. Table includes all internal pressure drops including cabinet losses. See Table 9 for additional pressure drops that must be considered as part of external static pressure drop.

Table 6. Supply fan drive data - PGB 120

MOTOR SHEAVE - ADJUSTABLE		FACTORY SETTING					
FAN SHEAVE - FIXED		2 TURNS OPENS					
MOTOR SHEAVE TURNS OPEN		0	1	2	3	4	5
FAN RPM	3.0 HP MOTOR	1242	1186	1129	1073	1016	960

NOTE: Allow ±5% variation in blower rpm due to pulley manufacturing tolerances.

Table 4. Supply fan drive data - PGB 102

MOTOR SHEAVE - ADJUSTABLE		FACTORY SETTING					
FAN SHEAVE - FIXED		2 TURNS OPENS					
MOTOR SHEAVE TURNS OPEN		0	1	2	3	4	5
FAN RPM	2.0 HP MOTOR	1351	1290	1228	1167	1105	1044

NOTE: Allow ±5% variation in blower rpm due to pulley manufacturing tolerances.

PRODUCT SPECIFICATIONS

Fan Performance Data (cont.)

Figure 7. Fan curve - PGB 150 & 180

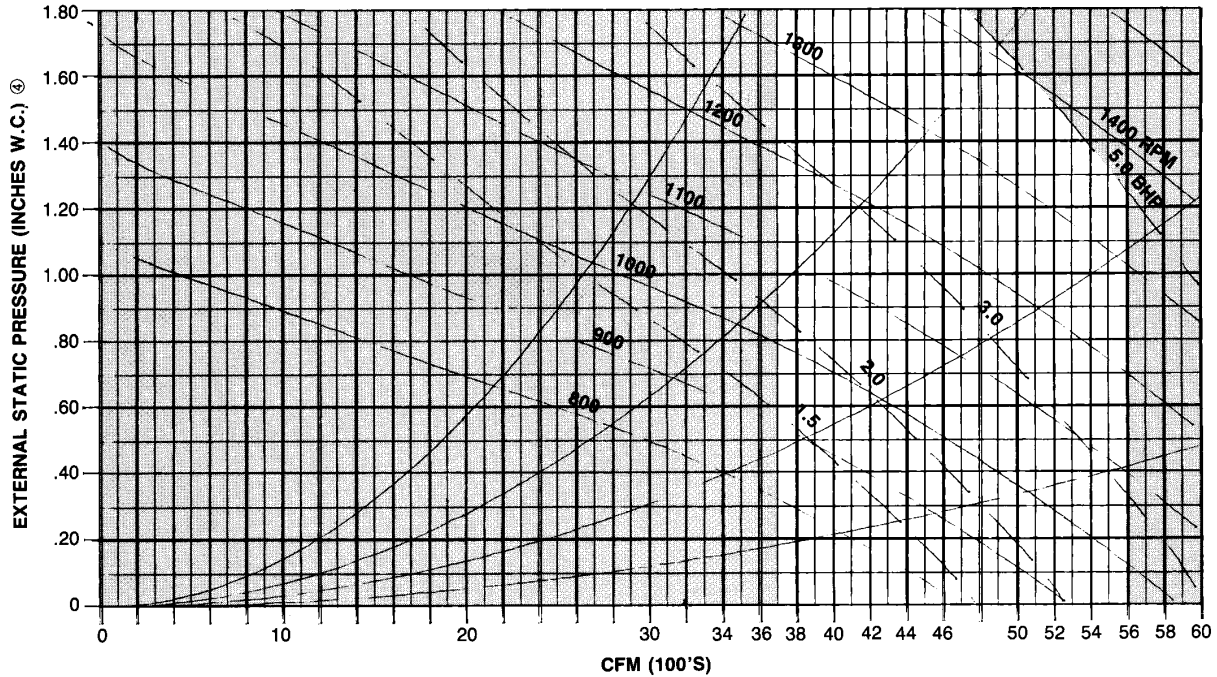


Table 7. Supply fan performance - PGB 150 & 180

CFM	EXTERNAL STATIC PRESSURE (INCHES W.C.) SEE NOTE (3)															
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	784	1.14	876	1.44	959	1.76	1036	2.10	1108	2.47	1176	2.86	1239	3.26	1300	3.67
4200	814	1.29	903	1.60	983	1.93	1058	2.28	1129	2.66	1195	3.05	1258	3.46	1318	3.89
4400	844	1.45	930	1.78	1008	2.12	1081	2.48	1150	2.86	1215	3.26	1277	3.68	1337	4.12
4600	874	1.63	957	1.97	1034	2.32	1105	2.69	1172	3.08	1236	3.49	1297	3.92	1356	4.37
4800	904	1.82	986	2.17	1060	2.54	1129	2.92	1195	3.32	1258	3.74	1318	4.17	1375	4.63
5000	932	2.02	1014	2.39	1086	2.77	1159	3.16	1218	3.57	1280	4.00	1338	4.44	1395	4.91
5200	966	2.24	1043	2.62	1113	3.01	1179	3.42	1242	3.84	1302	4.27	1360	4.73	1416	5.20
5400	997	2.48	1071	2.87	1141	3.28	1205	3.70	1267	4.12	1326	4.57	1382	5.03	1437	5.51
5600	1029	2.74	1101	3.14	1168	3.56	1231	3.99	1291	4.43	1394	4.88	1405	5.36	1458	5.85

NOTES:

DO NOT SELECT IN SHADED AREAS (FOR INTERPOLATION ONLY)

1. Selected values in BOLD ITALICS require a field drive change. See Table 8 below for drive ranges.
2. Maximum fan RPM = 1500
3. Table includes all internal pressure drops including cabinet losses. See Table 9 for additional pressure drops that must be considered as part of external static pressure drop.

Table 8. Supply fan drive data - PGB 150 & 180

MOTOR SHEAVE - ADJUSTABLE		FACTORY SETTING					
FAN SHEAVE - FIXED		2 TURNS OPENS					
MOTOR SHEAVE TURNS OPEN		0	1	2	3	4	5
FAN RPM	5.0 HP MOTOR	1400	1446	1273	1209	1146	1082

NOTE: Allow ±5% variation in blower rpm due to pulley manufacturing tolerances.

PRODUCT SPECIFICATIONS

Fan Performance Data (cont.)

Table 9. Component Pressure Drops

MODEL	CFM	WET COIL	GAS FURNACE SECTION			MED.	ECONO.
			210	245	280	EFF.	RETURN
						FILTERS	AIR DAMPER
090	2600	0.06	0.10	-	-	0.03	0.14
	3000	0.06	0.14	-	-	0.04	0.14
	3400	0.07	0.17	-	-	0.05	0.18
102	3000	0.07	0.14	0.14	-	0.04	0.14
	3400	0.09	0.17	0.18	-	0.05	0.18
	3800	0.09	0.22	0.23	-	0.07	0.18
120	3600	0.05	-	0.13	-	0.03	0.14
	4000	0.05	-	0.16	-	0.04	0.14
	4400	0.05	-	0.19	-	0.04	0.14
150	4600	0.13	-	-	0.23	0.05	0.18
	5000	0.13	-	-	0.27	0.06	0.18
	5400	0.13	-	-	0.31	0.06	0.21
180	5600	0.16	-	-	0.34	0.08	0.23

Cooling Capacity Data

Table 10. PGB 090 @ 3000 cfm

AMB. °F	EVAP. EAT	75° F DB			80° F DB			85° F DB			90° F DB		
		KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS
85	61 WB	9.0	86	74	9.0	88	87	9.1	93	93	9.1	98	98
	64 WB	9.1	91	65	9.1	91	80	9.1	93	93	9.1	98	98
	67 WB	9.1	97	56	9.1	97	71	9.1	97	85	9.2	98	98
	70 WB	9.3	103	47	9.3	103	62	9.3	103	76	9.3	103	91
	73 WB	9.3	109	38	9.3	109	53	9.3	109	67	9.4	109	82
90	61 WB	9.3	84	73	9.4	86	86	9.5	91	91	9.5	97	97
	64 WB	9.5	89	64	9.5	90	79	9.5	91	91	9.5	97	97
	67 WB	9.6	95	55	9.6	95	70	9.6	95	85	9.6	97	97
	70 WB	9.6	100	46	9.6	100	61	9.6	101	76	9.7	101	90
	73 WB	9.7	106	37	9.7	106	52	9.7	106	66	9.9	106	81
95	61 WB	9.7	83	73	9.8	85	85	9.8	90	90	9.9	96	96
	64 WB	9.8	88	64	9.8	88	78	9.8	90	90	9.9	96	96
	67 WB	9.9	93	55	9.9	93	70	9.9	93	84	10.0	96	96
	70 WB	9.9	99	46	10.0	99	60	10.0	99	75	10.0	99	90
	73 WB	10.1	104	36	10.1	104	51	10.1	104	66	10.2	104	81
100	61 WB	10.1	81	72	10.2	83	83	10.2	89	89	10.3	94	94
	64 WB	10.2	86	63	10.2	86	78	10.2	89	89	10.3	94	94
	67 WB	10.3	91	54	10.3	91	69	10.3	91	83	10.3	94	94
	70 WB	10.4	97	45	10.4	97	60	10.4	97	74	10.4	97	88
	73 WB	10.6	102	36	10.7	102	50	10.7	102	65	10.7	102	80
105	61 WB	10.6	79	71	10.6	82	82	10.7	87	87	10.8	92	92
	64 WB	10.6	84	62	10.6	84	77	10.7	87	87	10.8	92	92
	67 WB	10.8	89	53	10.8	89	68	10.8	89	82	10.8	92	92
	70 WB	10.8	94	44	10.8	94	59	10.9	95	73	10.9	95	88
	73 WB	11.1	101	35	11.1	101	50	11.1	101	64	11.1	101	79

NOTES:

- Capacities are gross and are based on 230, 460, operation. 208 volt operation must be derated by 0.98. Gross capacities do not include evaporator motor heat.
- KW is for entire unit.
- See Table 9a for capacity correction factors at other than nominal cfm

 SHADED AREA REPRESENTS 100% SENSIBLE COOLING

- AMB = Ambient Air Temperature
- EAT = Entering Air Temperature
- DB = Evaporator Dry Bulb EA
- WB = Evaporator Wet Bulb EA
- KW = 1000 Watts
- MBHT = 1000 Btu/Hr. Total Cooling
- CFM = Evaporator Airflow Cu.Ft./Min. Table 9a.

PRODUCT SPECIFICATIONS

Cooling Capacity Data (cont.)

Table 11. PGB 102 @ 3000 cfm

AMB. °F	EVAP. EAT	75° F DB			80° F DB			85° F DB			90° F DB		
		KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS
85	61 WB	9.0	94	82	9.0	96	95	9.1	102	102	9.2	108	108
	64 WB	9.1	99	72	9.1	100	88	9.1	102	102	9.2	108	108
	67 WB	9.2	106	62	9.2	106	78	9.2	106	94	9.2	108	107
	70 WB	9.2	112	52	9.2	112	68	9.2	112	84	9.2	112	100
	73 WB	9.3	119	41	9.3	119	58	9.3	119	74	9.3	117	90
90	61 WB	9.4	92	81	9.5	94	94	9.5	100	100	9.6	106	106
	64 WB	9.5	98	71	9.5	98	87	9.5	100	100	9.6	106	106
	67 WB	9.6	104	61	9.6	104	77	9.6	104	93	9.6	106	106
	70 WB	9.7	110	51	9.7	110	67	9.7	110	84	9.7	110	100
	73 WB	9.8	117	41	9.8	117	57	9.8	117	73	9.8	117	90
95	61 WB	9.9	90	80	9.9	92	92	10.0	99	99	10.1	105	105
	64 WB	10.0	96	70	10.0	96	86	10.0	99	99	10.1	105	105
	67 WB	10.0	102	60	10.1	102	77	10.1	102	93	10.1	105	104
	70 WB	10.1	108	50	10.1	108	66	10.1	108	83	10.1	108	99
	73 WB	10.2	114	40	10.2	114	56	10.2	114	73	10.2	114	89
100	61 WB	10.4	88	79	10.4	91	91	10.5	97	97	10.6	103	103
	64 WB	10.5	94	69	10.5	94	86	10.5	97	97	10.6	103	103
	67 WB	10.5	100	59	10.6	100	76	10.6	100	92	10.6	103	103
	70 WB	10.7	106	49	10.7	106	66	10.7	106	82	10.7	106	98
	73 WB	10.7	112	39	10.7	112	55	10.7	112	72	10.7	112	88
105	61 WB	10.9	86	78	11.0	89	89	11.1	95	95	11.1	101	101
	64 WB	11.0	92	69	11.0	92	85	11.1	95	95	11.1	101	101
	67 WB	11.1	97	59	11.1	97	75	11.1	97	91	11.1	101	101
	70 WB	11.2	103	48	11.2	103	65	11.2	103	81	11.2	104	97
	73 WB	11.3	110	38	11.3	110	55	11.3	110	71	11.3	110	87

Table 12. PGB 120 @ 4000 cfm

AMB. °F	EVAP. EAT	75° F DB			80° F DB			85° F DB			90° F DB		
		KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS
85	61 WB	11.2	116	99	11.3	118	117	11.4	125	125	11.5	132	132
	64 WB	11.4	123	87	11.4	123	107	11.4	125	124	11.5	132	132
	67 WB	11.5	131	75	11.5	131	95	11.5	131	114	11.5	132	131
	70 WB	11.6	138	63	11.6	138	83	11.6	139	102	11.6	139	122
	73 WB	11.7	147	51	11.7	147	70	11.7	147	90	11.7	147	109
90	61 WB	11.8	114	98	11.8	116	115	11.9	123	123	12.0	130	130
	64 WB	11.9	121	86	11.9	121	106	11.9	123	123	12.0	130	130
	67 WB	12.0	128	74	12.0	128	94	12.0	128	113	12.0	130	130
	70 WB	12.1	136	62	12.1	136	82	12.1	136	101	12.1	136	120
	73 WB	12.3	144	50	12.3	144	70	12.3	144	89	12.3	144	108
95	61 WB	12.3	112	97	12.3	114	114	12.5	121	121	12.6	128	128
	64 WB	12.4	118	85	12.4	119	105	12.5	121	121	12.6	128	128
	67 WB	12.5	125	73	12.5	125	85	12.5	126	112	12.6	128	128
	70 WB	12.7	133	61	12.7	133	81	12.7	133	100	12.7	133	119
	73 WB	12.8	141	49	12.8	141	69	12.8	141	88	12.8	141	107
100	61 WB	12.9	109	96	12.9	112	112	13.0	119	119	13.2	126	126
	64 WB	13.0	116	84	13.0	116	104	13.0	119	119	13.2	126	126
	67 WB	13.1	123	72	13.1	123	92	13.1	123	107	13.2	126	126
	70 WB	13.3	130	60	13.3	130	80	13.3	130	99	13.3	131	118
	73 WB	13.4	138	48	13.4	138	68	13.4	138	87	13.4	138	106
105	61 WB	13.5	107	95	13.6	109	109	13.7	117	117	13.8	124	124
	64 WB	13.6	113	83	13.6	113	102	13.7	117	117	13.8	124	124
	67 WB	13.7	120	71	13.6	120	91	13.7	120	110	13.8	124	124
	70 WB	13.9	127	59	13.9	128	79	13.9	127	98	13.9	128	117
	73 WB	14.0	135	47	14.0	135	66	14.0	125	86	14.0	135	105

NOTES:

- Capacities are gross and are based on 230, 460, operation. 208 volt operation must be derated by 0.98. Gross capacities do not include evaporator motor heat.
- KW is for entire unit.
- See Table 9a for capacity correction factors at other than nominal cfm.

- AMB. = Ambient Air Temperature
- EAT = Entering Air Temperature
- DB = Evaporator Dry Bulb EAT
- WB = Evaporator Wet Bulb EAT
- KW = 1000 Watts
- MBHS = 1000 Btu/Hr. Sensible Cooling
- CFM = Evaporator Airflow Cu.Ft./Min. Table 9a

SHADED AREA REPRESENTS 100% SENSIBLE COOLING

PRODUCT SPECIFICATIONS

Cooling Capacity Data (cont.)

Table 13. PGB 150 @ 5000 cfm

AMB. °F	EVAP. EAT	75° F DB			80° F DB			85° F DB			90° F DB		
		KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS
	61 WB	14.5	143	127	14.5	147	147	14.7	157	157	14.9	166	166
	64 WB	14.6	152	111	14.6	152	137	14.7	156	156	14.9	166	166
85	67 WB	14.8	161	95	14.8	161	121	14.8	162	147	14.9	166	166
	70 WB	14.9	171	79	15.0	171	105	15.0	171	131	15.0	171	156
	73 WB	15.1	181	63	15.1	181	89	15.1	181	115	15.1	181	141
	61 WB	15.2	141	126	15.2	145	145	15.4	154	154	15.6	164	164
	64 WB	15.3	149	110	15.3	149	136	15.4	154	154	15.6	164	164
90	67 WB	15.5	158	94	15.5	158	120	15.5	159	146	15.6	164	164
	70 WB	15.7	168	78	15.7	168	104	15.7	168	130	15.7	168	155
	73 WB	15.8	177	62	15.9	177	88	15.9	177	114	15.9	177	140
	61 WB	15.9	137	124	16.0	142	142	16.2	152	152	16.4	161	161
	64 WB	16.1	145	109	16.1	146	134	16.2	152	152	16.4	161	161
95	67 WB	16.2	154	93	16.2	155	119	16.3	156	144	16.4	161	161
	70 WB	16.4	164	77	16.4	164	103	16.4	164	129	16.4	165	154
	73 WB	16.6	173	61	16.6	173	87	16.6	173	112	16.6	173	138
	61 WB	16.7	134	123	16.8	140	140	17.0	149	149	17.2	158	158
	64 WB	16.9	142	107	16.9	142	133	17.0	149	149	17.2	158	158
100	67 WB	17.1	151	91	17.0	151	117	17.1	152	143	17.2	158	158
	70 WB	17.2	160	75	17.2	160	101	17.2	160	127	17.2	161	152
	73 WB	17.4	169	59	17.4	169	85	17.4	169	111	17.5	169	137
	61 WB	17.6	131	121	17.6	137	137	17.8	146	146	18.0	155	155
	64 WB	17.7	138	106	17.7	139	131	17.8	146	146	18.0	155	155
105	67 WB	17.9	147	90	17.9	147	116	17.9	148	141	18.0	155	155
	70 WB	18.1	156	74	18.1	156	100	18.1	156	126	18.1	157	151
	73 WB	18.3	165	58	18.3	165	84	18.3	166	110	18.3	166	136

Table 14. PGB 180 @ 5600 cfm

AMB. °F	EVAP. EAT	75° F DB			80° F DB			85° F DB			90° F DB		
		KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS	KW	MBHT	MBHS
	61 WB	18.5	173	147	18.6	175	173	18.8	185	185	19.0	196	196
	64 WB	18.7	183	129	18.7	183	158	18.8	185	184	19.0	196	196
85	67 WB	18.9	194	112	19.0	194	140	19.0	194	169	19.0	197	195
	70 WB	19.2	205	94	19.2	205	122	19.2	205	151	19.2	205	180
	73 WB	19.5	217	75	19.5	217	104	19.5	217	133	19.5	217	162
	61 WB	19.3	169	145	19.4	172	171	19.6	182	182	19.8	193	193
	64 WB	19.5	179	128	19.5	180	156	19.6	182	182	19.8	193	193
90	67 WB	19.8	190	110	19.8	190	139	19.8	190	167	19.8	193	192
	70 WB	20.0	201	92	20.0	201	121	20.0	201	149	20.0	201	178
	73 WB	20.3	213	74	20.3	213	103	20.3	213	131	20.3	213	160
	61 WB	20.2	165	144	20.3	168	168	20.5	179	179	20.7	190	190
	64 WB	20.4	175	126	20.4	176	155	20.5	179	179	20.7	190	190
95	67 WB	20.6	186	108	20.6	186	137	20.6	186	166	20.7	190	190
	70 WB	20.9	197	90	20.9	197	119	20.9	197	148	20.9	197	176
	73 WB	21.1	208	72	21.1	208	101	21.1	208	130	21.1	208	159
	61 WB	21.1	162	142	21.2	165	165	21.4	176	176	21.7	186	186
	64 WB	21.3	171	125	21.3	172	153	21.4	176	176	21.7	186	186
100	67 WB	21.6	182	107	21.6	182	135	21.6	182	164	21.7	186	186
	70 WB	21.8	192	89	21.8	192	118	21.8	192	146	21.8	193	175
	73 WB	22.1	203	71	22.1	203	99	22.1	204	128	22.1	204	157
	61 WB	22.1	158	140	22.2	162	162	22.4	173	173	22.6	183	183
	64 WB	22.3	167	123	22.3	167	151	22.4	172	172	22.6	183	183
105	67 WB	22.5	177	105	22.5	177	134	22.5	178	162	22.7	183	183
	70 WB	22.8	188	87	22.8	188	116	22.8	188	145	22.8	188	173
	73 WB	23.0	199	69	23.0	199	98	23.1	199	127	23.1	199	155

NOTES:

- Capacities are gross and are based on 230, 460, operation. 208 volt operation must be derated by 0.98. Gross capacities do not include evaporator motor heat.
- KW is for entire unit.
- See Table 9a for capacity correction factors at other than nominal cfm.

- AMB. = Ambient Air Temperature
- EAT = Entering Air Temperature
- DB = Evaporator Dry Bulb EAT
- WB = Evaporator Wet Bulb EAT
- KW = 1000 Watts
- MBHS = 1000 Btu/Hr. Sensible Cooling
- CFM = Evaporator Airflow Cu.Ft./Min. Table 9a

 SHADED AREA REPRESENTS 100% SENSIBLE COOLING

PRODUCT SPECIFICATIONS

Cooling Capacity Data (cont.)

Table 15a. Cooling capacity correction factors

	CFM						
	-15%	-10%	-5%	STD.	+5%	+10%	+15%
TOTAL MBH	0.971	0.985	0.991	0	1.006	1.012	1.019
SENSIBLE MBH	0.925	0.952	0.974	0	1.024	1.048	1.070
KW	0.985	0.989	0.995	0	1.004	1.006	1.011

Table 15b. Evaporator motor heat

HORSE POWER	BTUH/HOUR
1.5	4,650
2	6,200
3	9,300
5	15,500

Gas Heat

Table 16. Gas furnace air temperature rise

MODEL		210	245	280
NUMBER OF TUBES		6	7	8
VENTOR MOTOR HP		1/16	1/12	1/12
MBH INPUT		210	245	280
MBH OUTPUT		163.8	189.9	218.4
MAX. AIR TEMP. RISE		55	60	60
CFM	2600	-	-	-
	2800	54.2	-	-
	3000	50.6	58.6	-
	3200	47.4	54.9	-
	3400	44.6	51.7	59.5
	3600	42.1	48.8	56.2
	3800	39.9	46.3	53.2
	4000	37.9	44.0	50.6
	4200	36.1	41.9	48.1
	4400	34.5	40.0	46.0
	4600	33.0	38.2	44.0
	4800	31.6	36.6	42.1
	5000	30.3	35.2	40.4
	5200	29.2	33.8	38.9
	5400	28.1	32.6	37.4
	5600	27.1	31.4	36.1
5800	26.1	30.3	34.9	
6000	25.3	29.3	33.7	

NOTES:

- See Table 17 for furnace availability in various unit sizes.
- Capacities are approved for altitudes to 2000 feet. At higher elevations, heating capacity must be reduced 4% (x0.96) for each 1000 feet above sea level.
- Air temperature rise is for total heating capacity. Temperature rises at other conditions may be calculated by using the formula:

$$\text{Temperature Rise} = \frac{\text{Output Capacity} - \text{Btu/h}}{1.08 \times \text{ft}^3/\text{min. Airflow}}$$
- For altitudes over 2000 feet, air temperature rise must be calculated using the formula:

$$\text{Temperature Rise} = \frac{\text{Output Capacity} - \text{Btu/h}}{14.4 \times \text{ft}^3/\text{min. Airflow} \times \text{Specific Weight of Air}}$$
- 2-stage control is standard.
- Output capacity based on nominal 1000 Btu/Ft³ natural gas or 2500 Btu/Ft³ propane.

Table 17. Gas furnace air temperature rise

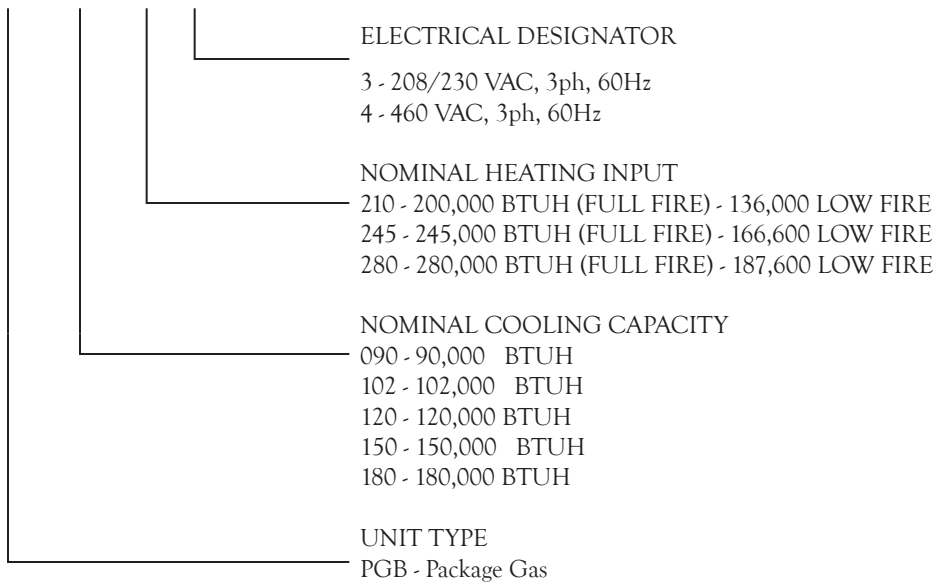
UNIT SIZE	MODEL NUMBER		
	210	245	280
7 1/2	X	N/A	N/A
8 1/2	X	N/A	N/A
10	N/A	X	N/A
12 1/2	N/A	X	N/A
15	N/A	N/A	X

X - Furnace Available N/A - Furnace Not Available

PRODUCT SPECIFICATIONS

Model Identification

PGB 090 210 - 3



PRODUCT SPECIFICATIONS

Application Details & Accessories

FACTORY SUPPLIED ACCESSORIES

THERMOSTAT (CHT90-120)

Two stage cool and two stage heat thermostat with subbase, Manual changeover, Fan ON or AUTO.

Note: A variety of thermostat configurations can be used on this equipment based on the application needs. For example, our CHTS36-60 can be used if two stage cooling and single stage heat is desired. Our CHT18-60 can be used if single stage cooling and heating is desired. A single stage cooling and two stage heating thermostat can be used.

ROOFTOP LIFT KIT (RLK90-120)

Kit consists of four 1/2" shackles that are used to lift the equipment into position on a roof, etc. The shackles are to be attached to the mounting holes in the base rails. Wire or strap material along with field supplied spreader bars are employed to complete the lifting assembly (See Rigging detail).

LOW AMBIENT CONTROL (LA-01)

Liquid temperature (or pressure) operated solid state control, which varies the speed of one of the condenser fans. Low ambient control reduces fan motor RPM as liquid temperature (or pressure) decreases. Caution: If control is used below 50°F accumulators should be added to the equipment to avoid slugging of the compressors.

ROOF CURB (PGC-5)

Full perimeter curb for equipment in the down discharge application. Curb includes provisions for duct attachment prior to setting unit. Curb is shipped knocked down with all necessary hardware and gasket material.

MANUAL AND MOTORIZED FRESH AIR DAMPERS (PGMD-5 & PGMDM-5)

Manual damper is fixed position type for 0 to 25% fresh air. Motorized damper is a field adjustable mechanical damper for 0 to 25% fresh air, damper automatically closes when blower stops.

ECONOMIZERS (PGED 090/102-5 & PGED 120/180-5, PGEH 090/102-5 & PGEH 120/180-5)

Fully modulating, enthalpy controlled economizers shipped with major components pre-assembled. Plug assembly on equipment and economizer provides easy foolproof wiring.

HORIZONTAL DUCT KIT (PGHDK 090/102-5 & PGHDK 120/180-5)

The unit is shipped in the down flow (vertical) duct configuration. The horizontal duct kit must be installed in the field for horizontal duct configuration.

LIQUID PROPANE KIT (LPW-06)

Kit consists of an L.P. two stage gas valve and main gas orifices to convert appliance from natural gas to liquid propane fuel.

PANEL LOUVER KIT (PLK090/102-5 & PLK120/180-5)

Louvered panels for condenser coil protection.

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