



# APG15

## PACKAGED GAS/ELECTRIC

### UP TO 15 SEER / 80% AFUE

### 2 TO 5 TONS

**COOLING CAPACITY: 23,200 – 56,500 BTU/H**  
**HEATING CAPACITY: 69,000 – 138,000 BTU/H**



#### Standard Features

- Patented, heavy-duty Million-Air™ stainless-steel heat exchanger
- High-efficiency compressor with factory-installed sound blanket
- EEM (energy-efficient) blower motor
- Fully charged R-410A system
- Copper tube / aluminum fin coils
- Redundant two-stage gas valve; natural gas with easy conversion to propane
- Power-assisted combustion
- Direct-spark ignition system, including a microprocessor-based control for the entire ignition sequence
- All blower operation and all safety circuits complete with self-diagnostics
- Loss-of-charge protection and high-pressure switch
- California Low NOx approved

#### Cabinet Features

- Fully insulated heavy-gauge, zinc-coated steel cabinet with UV-resistant powder-paint finish
- Compressor grommets for vibration isolation
- All models fit in a standard-size pick-up truck
- One roof curb fits all units
- Convenient access panels
- Bottom 2" high base rails for easier handling



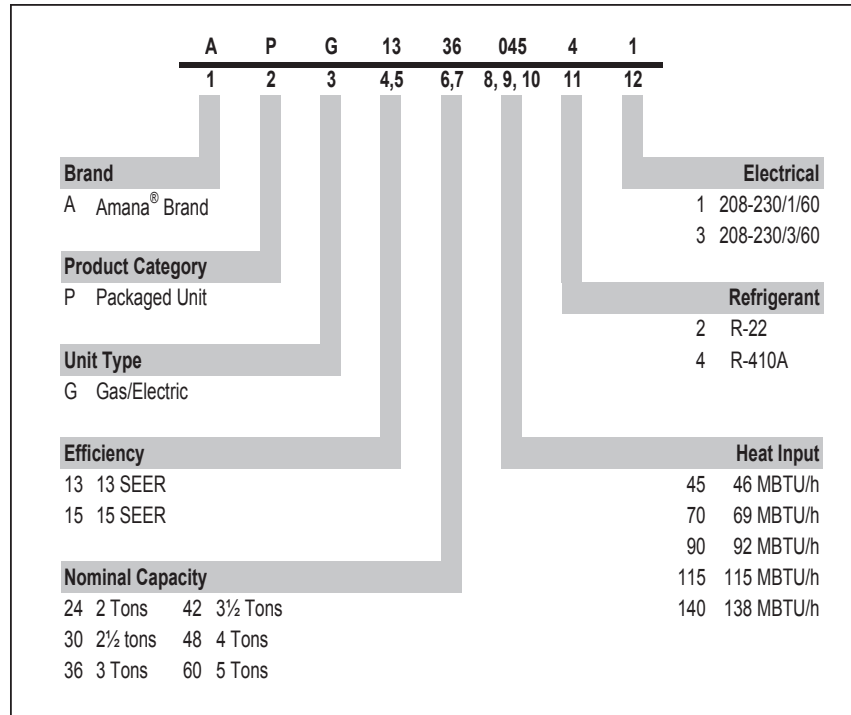
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\* Complete warranty details available from your local dealer or at [www.amana-hac.com](http://www.amana-hac.com). To receive the Lifetime Compressor Limited Warranty, Lifetime Heat Exchanger Limited Warranty and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

# NOMENCLATURE



# ACCESSORIES

ACCESSORY DESCRIPTION	ITEM NUMBER	
	MEDIUM CHASSIS	LARGE CHASSIS
Concentric Kit	CDK36	CDK4872
Downflow Economizer	PGED101/102	PGED103
Downflow Internal Filter Rack	PGFR101/102/103	PGFR101/102/103
Downflow Manual Damper	PGMDD102	PGMDD103
Downflow Motorized Damper	PGMDMD102	PGMDMD103
Downflow Square to Round	SQRPG101/102	SQRPG103
Horizontal Duct Cover	20464501PDGK	20464502PDGK
Horizontal Economizer	PGEH102	PGEH103
Horizontal Manual Damper	PGMDH102	PGMDH103
Horizontal Motorized Damper	PGMDMH102	PGMDMH103
Horizontal Square to Round	SQRPGH102	SQRPGH103
LP Conversion Kit	LPM-06	LPM-06
Roof Curb	PGC101/102/103	PGC101/102/103

**Important EnergyStar Notice:** EnergyStar ratings are dependent upon conditions beyond equipment installation. Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet EnergyStar criteria. Ask your contractor for details or visit [www.energystar.gov](http://www.energystar.gov).

# SPECIFICATIONS

	APG15 2407041A*	APG15 3009041A*	APG15 3709041A*	APG15 4211541A*	APG15 4911541A*	APG15 6014041A*
<b>COOLING CAPACITY (BTU/H)</b>						
High-Stage Total <sup>2 3</sup>	23,200	29,000	35,000	40,000	47,000	56,500
Sensible <sup>2 3</sup>	18,500	22,500	26,300	30,300	34,000	44,000
SEER / EER <sup>2 3</sup>	14.5 / 12.0	14.2 / 12.0	14.5 / 11.5	14.5 / 12	15 / 11.5	14 / 10.1
Low-Stage Total <sup>2</sup>	---	---	---	---	33,000	41,000
Decibels	76	76	76	78	78	78
AHRI #s	4385164	4385165	4385166	4385167	4385168	4385169
<b>HEATING CAPACITY (BTU/H)</b>						
High-Fire Input / Output	69,000 / 55,000	92,000 / 73,500	92,000 / 73,500	115,000 / 92,000	115,000 / 92,000	138,000 / 110,200
Low-Fire Input / Output	51,000 / 40,500	69,000 / 55,000	69,000 / 55,000	86,000 / 69,000	86,000 / 69,000	103,500 / 83,000
Temperature Rise Range	35 - 65	45 - 75	45 - 75	45-75	45-75	45 - 75
No. of Burners	3	4	4	5	5	6
Orifice Size (Gas / LP)	43 / 55	43 / 55	43 / 55	43 / 55	43 / 55	43 / 55
<b>EVAPORATOR MOTOR</b>						
Type	EEM	EEM	EEM	EEM	EEM	EEM
Wheel (DxW)	10" x 8"	10" x 9"	10" x 9"	11 x 10	11" x 10"	11" x 10"
Indoor Nominal CFM	845	1,050	1,050	1,200	1,300	1,300 / 1,810
Motor Speed Tap (Cooling)	T4	T3, T4	T3, T4	T3, T4	T3, T4	T3, T4
RPM / Amps (Cooling)	724 / 1.21	960 / 3.06	960 / 3.06	890 / 3.8	890 / 3.8	778 / 1.98 1,030 / 5.7
Horsepower / RPM	½ / 1,050	½ / 1,050	½ / 1,050	¾ / 1,050	¾ / 1,050	1 / 1,050
<b>EVAPORATOR COIL</b>						
Face Area (ft <sup>2</sup> )	4.33	4.33	4.33	5.67	5.67	5.67
Rows Deep / Fin per Inch	2 / 14	3 / 14	4 / 14	4 / 14	4 / 14	4 / 14
Expansion Device	TXV	0.065	TXV	0.072	TXV	TXV
Filter Size (ft <sup>2</sup> )	2.7	4.2	4.2	5.1	5.1	6.3
Drain Size (NPT)	¾"	¾"	¾"	¾"	¾"	¾"
Refrigerant Charge -- R-410A	81 oz	102 oz	112 oz	162 oz	167 oz	177 oz
<b>CONDENSER FAN / COIL</b>						
Horsepower - RPM	1/6 - 815	¼ / 830	¼ / 830	¼ - 1,075	½ - 1,075	½ - 1,075
Fan Diameter / # of Fan Blades	22" / 3	22" / 3	22" / 3	22" / 3	22" / 3	22" / 3
Outdoor Nominal CFM	2,400	2,700	2,700	3,500	3,500	3,500
Face Area (ft <sup>2</sup> )	12.3	12.3	12.3	15.3	15.3	15.3
Row Deep / Fins per Inch	1 / 22	2 / 16	2 / 16	2 / 16	2 / 16	2 / 16
<b>COMPRESSOR</b>						
Quantity / Type	1 / Scroll	1 / Scroll	1 / Scroll	1 / Scroll	1 / Scroll	1 / Scroll
Stage	Single	Single	Single	Single	Two	Two
Compressor RLA / LRA	13.5 / 58.3	14.1 / 73	16.7 / 79	17.9 / 112	21.2 / 96	25.6 / 118
<b>ELECTRICAL DATA</b>						
Voltage/ Phase/ Frequency	208-230/ 1/ 60	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Indoor Blower FLA	4.1	1.86	1.86	2.87	2.87	7.6
Outdoor Fan FLA / LRA	1.1 / 1.7	1.5 / 3	1.5 / 3	1.4 / 2.9	1.4 / 2.9	1.4 / 5.2
Total Unit Amps	18.7	17.5	20.1	22.2	25.5	34.6
Min. Circuit Ampacity	22.1	21	24.2	26.6	30.8	42.1
Max. Overcurrent Protection	30	35	40	40	50	60
Entrance Size Power Supply	1½"	1½"	1½"	1½"	1½"	1½"
Entrance Size Control Voltage	¾"	¾"	¾"	¾"	¾"	¾"
<b>OPERATING WEIGHT (LBS)</b>	417	453	458	538	538	543
<b>SHIP WEIGHT (LBS)</b>	439	475	480	560	560	565

<sup>1</sup> Single Stage

<sup>2</sup> Two Stage (or Single Stage 2-ton only)

<sup>3</sup> Outdoor Ambient Temperature @ 95°F







EXPANDED COOLING DATA — APG153009041 (CONT.)

Table with columns for DB (1125, 1000, 875, 85), AIRFLOW, and Outdoor Ambient Temperature (65°F, 75°F, 85°F, 95°F, 105°F, 115°F). Rows include MIBh, S/T, and ΔT for various models (1125, 1000, 875, 85).

IDB: Entering Indoor Dry Bulb Temperature
High & low pressures are measured at the liquid and suction access fittings.
Shaded area reflects AHR1 (TVVA) conditions
Amps: Unit amps (comp. + evaporator + condenser fan motors)
kW = Total system power





EXPANDED COOLING DATA — APG153709041\* (CONT.)

IDB		OUTDOOR AMBIENT TEMPERATURE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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AIREFLOW		35.6	36.4	38.9	41.6	44.8	35.5	38.0	40.6	43.9	47.1	39.6	33.1	33.8	36.2	38.7	41.5	32.2	34.4	36.7	39.1	29.8	31.8	34.0	26	25	21	17	26	25	22	17	26	25	22	17	24	23	20	16	2.32	2.37	2.45	2.53	2.51	2.56	2.65	2.74	2.67	2.73	2.82	2.92	2.81	2.88	2.97	3.08	2.93	3.00	3.10	3.21	3.04	3.11	3.22	3.33	Amps	11.1	11.3	11.7	12.0	11.9	12.1	12.4	12.8	12.7	13.0	13.4	13.8	13.5	13.8	14.2	14.6	14.2	14.5	15.0	15.4	15.0	15.3	15.7	16.3	Hi PR	240	258	273	285	269	290	306	319	306	330	348	363	349	376	397	414	393	423	446	465	434	467	493	514	Lo PR	107	113	124	132	113	120	131	139	117	125	136	145	123	131	143	152	129	137	150	159	133	142	155	165	MBh	35.3	36.0	38.5	41.1	34.4	35.2	37.6	40.2	33.6	34.3	36.7	39.2	32.8	33.5	35.8	38.3	31.2	31.8	34.0	36.4	28.9	29.5	31.5	33.7	S/T	0.87	0.81	0.66	0.49	0.90	0.84	0.68	0.51	0.92	0.86	0.70	0.52	0.95	0.89	0.72	0.54	0.99	0.92	0.75	0.56	0.99	0.93	0.76	0.57	ΔT	27	25	22	18	27	26	22	18	27	26	22	18	27	26	23	18	27	26	22	18	27	26	21	17	kW	2.32	2.37	2.45	2.53	2.50	2.56	2.64	2.73	2.66	2.72	2.81	2.91	2.81	2.87	2.97	3.07	2.93	2.99	3.10	3.20	3.03	3.10	3.21	3.32	Amps	11.1	11.3	11.6	12.0	11.8	12.1	12.4	12.8	12.7	13.0	13.3	13.8	13.4	13.7	14.1	14.6	14.2	14.5	14.9	15.4	14.9	15.2	15.7	16.2	Hi PR	239	258	272	284	269	289	305	318	306	329	347	362	348	375	396	413	392	421	445	464	433	466	492	513	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	MBh	32.5	33.2	35.5	38.0	31.8	32.5	34.7	37.1	31.0	31.7	33.9	36.2	30.3	30.9	33.0	35.3	28.8	29.4	31.4	33.6	26.6	27.2	29.1	31.1	S/T	0.83	0.78	0.64	0.48	0.86	0.81	0.66	0.49	0.89	0.83	0.68	0.51	0.92	0.86	0.70	0.52	0.95	0.89	0.73	0.54	0.96	0.90	0.73	0.55	ΔT	29	27	24	19	29	28	24	19	29	28	24	19	29	28	24	19	29	28	24	19	27	26	22	18	kW	2.26	2.31	2.39	2.46	2.44	2.49	2.57	2.66	2.60	2.65	2.74	2.83	2.73	2.80	2.89	2.99	2.85	2.92	3.02	3.12	2.95	3.02	3.12	3.23	Amps	10.9	11.1	11.4	11.7	11.6	11.8	12.1	12.5	12.4	12.7	13.0	13.4	13.1	13.4	13.8	14.2	13.8	14.1	14.6	15.0	14.6	14.9	15.3	15.8	Hi PR	232	250	264	275	261	280	296	309	296	319	337	351	338	363	384	400	380	409	432	450	420	452	477	497	Lo PR	103	110	120	127	109	116	126	135	113	120	131	140	119	126	138	147	125	133	145	154	129	137	150	159

MBh	36.2	36.9	38.7	41.3	35.4	36.1	37.8	40.3	34.5	35.2	36.9	39.3	33.7	34.4	36.0	38.4	32.0	32.6	34.2	36.5	29.7	30.2	31.7	33.8	S/T	0.93	0.89	0.81	0.65	0.96	0.93	0.83	0.68	0.98	0.95	0.86	0.69	1.00	0.98	0.88	0.72	1.00	1.00	0.92	0.74	1.00	1.00	0.92	0.75	kW	2.77	2.77	2.5	2.2	2.8	2.7	2.6	2.2	2.8	2.7	2.6	2.2	2.8	2.7	2.6	2.2	2.6	2.7	2.6	2.2	2.4	2.5	2.4	2.1	Amps	11.2	11.4	11.7	12.1	12.0	12.2	12.5	12.9	12.8	13.1	13.5	13.9	13.6	13.9	14.3	14.7	14.3	14.6	15.1	15.6	15.1	15.4	15.9	16.4	Hi PR	243	261	276	288	272	293	309	323	310	333	352	367	353	379	401	418	397	427	451	470	438	472	498	519	Lo PR	108	115	125	133	114	121	132	141	118	126	137	146	124	132	144	154	130	138	151	161	135	143	156	166	MBh	35.9	36.6	38.3	40.9	35.0	35.7	37.4	39.9	34.2	34.9	36.5	39.0	33.4	34.0	35.6	38.0	31.7	32.3	33.8	36.1	29.4	29.9	31.3	33.4	S/T	0.91	0.88	0.79	0.64	0.94	0.91	0.82	0.66	0.96	0.93	0.84	0.68	1.00	0.96	0.87	0.70	1.00	1.00	0.90	0.73	1.00	1.00	0.91	0.74	kW	2.8	2.8	2.6	2.3	2.9	2.8	2.7	2.3	2.9	2.8	2.7	2.3	2.9	2.8	2.7	2.3	2.8	2.8	2.7	2.3	2.6	2.6	2.5	2.1	Amps	11.2	11.4	11.7	12.1	11.9	12.2	12.5	12.9	12.8	13.1	13.4	13.9	13.6	13.8	14.2	14.7	14.3	14.6	15.0	15.5	15.0	15.4	15.8	16.4	Hi PR	242	260	275	287	271	292	308	322	309	332	351	366	352	378	399	417	395	426	449	469	437	470	497	518	Lo PR	107	114	125	133	113	121	132	140	118	125	137	146	124	132	144	153	130	138	151	160	134	143	156	166	MBh	33.1	33.7	35.3	37.7	32.3	33.0	34.5	36.8	31.6	32.2	33.7	36.0	30.8	31.4	32.9	35.1	29.3	29.8	31.2	33.3	27.1	27.6	28.9	30.9	S/T	0.87	0.84	0.76	0.62	0.91	0.87	0.79	0.64	0.93	0.90	0.81	0.66	0.96	0.93	0.84	0.68	1.00	0.96	0.87	0.70	1.00	0.97	0.87	0.71	kW	30	30	28	24	31	30	29	25	31	30	29	25	31	31	29	25	31	30	28	25	28	28	27	23	Amps	10.9	11.1	11.5	11.8	11.7	11.9	12.2	12.6	12.5	12.8	13.1	13.5	13.2	13.5	13.9	14.3	14.0	14.3	14.7	15.2	14.7	15.0	15.4	15.9	Hi PR	235	252	267	278	263	283	299	312	299	322	340	355	341	367	387	404	384	413	436	455	424	456	482	502	Lo PR	104	111	121	129	110	117	128	136	114	122	133	141	120	128	139	149	126	134	146	156	130	138	151	161
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IDB: Entering Indoor Dry Bulb Temperature  
High & low pressures are measured at the liquid and suction access fittings.  
kW = Total system power  
Amps: Unit amps (comp. + evaporator + condenser fan motors)

EXPANDED COOLING DATA — APG155421154

Table with columns for Outdoor Ambient Temperature (75°F, 85°F, 95°F, 105°F, 115°F) and Indoor Wet Bulb Temperature (71°F, 73°F, 75°F, 77°F, 79°F, 81°F, 83°F, 85°F, 87°F, 89°F, 91°F, 93°F, 95°F, 97°F, 99°F, 101°F, 103°F, 105°F, 107°F, 109°F, 111°F, 113°F, 115°F). Rows include models 1350, 1200, and 1050 with various airflow and ampere data.

Table with columns for Outdoor Ambient Temperature (75°F, 85°F, 95°F, 105°F, 115°F) and Indoor Wet Bulb Temperature (71°F, 73°F, 75°F, 77°F, 79°F, 81°F, 83°F, 85°F, 87°F, 89°F, 91°F, 93°F, 95°F, 97°F, 99°F, 101°F, 103°F, 105°F, 107°F, 109°F, 111°F, 113°F, 115°F). Rows include models 1350, 1200, and 1050 with various airflow and ampere data.

IDB: Entering Indoor Dry Bulb Temperature  
High & low pressures are measured at the liquid and suction access fittings.  
Shaded area reflects ACCA (TVA) conditions  
Amps: Unit amps (comp. + evaporator + condenser fan motors)  
kW = Total system power



# EXPANDED COOLING DATA — APG154911541 — SINGLE STAGE

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE												ENTERING INDOOR WET BULB TEMPERATURE											
		65°F				75°F				85°F				95°F				105°F				115°F			
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
<b>1135</b>	MBh	45.2	46.8	51.3	-	44.1	45.7	50.1	-	43.1	44.6	48.9	-	42.0	43.5	47.7	-	39.9	41.4	45.3	-	37.0	38.3	42.0	-
	S/T	0.75	0.63	0.43	-	0.78	0.65	0.45	-	0.80	0.67	0.46	-	0.82	0.69	0.48	-	0.85	0.71	0.49	-	0.86	0.72	0.50	-
	ΔT	27	24	18	-	28	24	18	-	28	24	18	-	28	24	18	-	28	24	18	-	26	22	17	-
	kW	2.09	2.14	2.20	-	2.25	2.30	2.37	-	2.39	2.44	2.51	-	2.51	2.56	2.64	-	2.61	2.67	2.75	-	2.70	2.76	2.85	-
	Amps	8.6	8.8	9.0	-	9.2	9.4	9.7	-	9.9	10.1	10.4	-	10.5	10.7	11.0	-	11.1	11.3	11.6	-	11.6	11.9	12.3	-
	Hi PR	212	228	241	-	238	256	270	-	270	291	307	-	308	331	350	-	346	372	393	-	382	412	435	-
	Lo PR	113	120	131	-	119	127	138	-	124	132	144	-	130	138	151	-	136	145	158	-	141	150	164	-
	MBh	44.7	46.3	50.8	-	43.7	45.3	49.6	-	42.6	44.2	48.4	-	41.6	43.1	47.2	-	39.5	41.0	44.9	-	36.6	37.9	41.6	-
	S/T	0.73	0.61	0.43	-	0.76	0.64	0.44	-	0.78	0.65	0.45	-	0.81	0.67	0.47	-	0.84	0.70	0.48	-	0.84	0.70	0.49	-
	ΔT	29	25	19	-	29	25	19	-	29	25	19	-	29	25	19	-	29	25	19	-	27	23	18	-
<b>1050</b>	kW	2.09	2.13	2.20	-	2.24	2.29	2.36	-	2.38	2.43	2.51	-	2.50	2.55	2.64	-	2.60	2.66	2.75	-	2.69	2.75	2.84	-
	Amps	8.6	8.8	9.0	-	9.2	9.4	9.6	-	9.9	10.1	10.4	-	10.4	10.7	11.0	-	11.0	11.3	11.6	-	11.6	11.9	12.2	-
	Hi PR	211	227	240	-	237	255	269	-	269	290	306	-	307	330	349	-	345	371	392	-	381	410	433	-
	Lo PR	113	120	131	-	119	126	138	-	124	131	143	-	130	138	151	-	136	145	158	-	141	150	163	-
	MBh	42.5	44.0	48.2	-	41.5	43.0	47.1	-	40.5	42.0	46.0	-	39.5	41.0	44.9	-	37.5	38.9	42.6	-	34.8	36.0	39.5	-
	S/T	0.70	0.59	0.41	-	0.73	0.61	0.42	-	0.75	0.62	0.43	-	0.77	0.64	0.45	-	0.80	0.67	0.46	-	0.81	0.67	0.47	-
	ΔT	30	26	20	-	30	26	20	-	30	26	20	-	30	26	20	-	30	26	20	-	28	24	18	-
	kW	2.06	2.10	2.16	-	2.21	2.25	2.32	-	2.34	2.39	2.47	-	2.46	2.51	2.59	-	2.56	2.62	2.70	-	2.65	2.71	2.79	-
	Amps	8.5	8.6	8.9	-	9.0	9.2	9.5	-	9.7	9.9	10.2	-	10.3	10.5	10.8	-	10.9	11.1	11.4	-	11.4	11.7	12.0	-
	Hi PR	207	223	235	-	232	250	264	-	264	284	300	-	301	324	342	-	338	364	384	-	374	402	425	-
Lo PR	110	117	128	-	116	124	135	-	121	129	141	-	127	135	148	-	133	142	155	-	138	147	160	-	

<b>1135</b>	MBh	45.9	47.3	51.2	54.9	44.9	46.2	50.0	53.7	43.8	45.1	48.8	52.4	42.7	44.0	47.6	51.1	40.6	41.8	45.2	48.5	37.6	38.7	41.9	45.0
	S/T	0.85	0.76	0.58	0.37	0.88	0.79	0.60	0.38	0.91	0.81	0.61	0.39	0.93	0.84	0.63	0.41	0.97	0.87	0.66	0.42	0.98	0.87	0.66	0.43
	ΔT	32	29	24	17	32	30	24	17	32	30	24	17	32	30	24	17	32	29	24	17	30	27	22	16
	kW	2.11	2.15	2.22	2.29	2.27	2.31	2.39	2.46	2.41	2.46	2.53	2.62	2.53	2.58	2.66	2.75	2.63	2.69	2.78	2.87	2.72	2.78	2.87	2.97
	Amps	8.7	8.8	9.1	9.4	9.3	9.5	9.7	10.0	10.0	10.2	10.5	10.8	10.6	10.8	11.1	11.5	11.2	11.4	11.7	12.1	11.7	12.0	12.4	12.8
	Hi PR	214	230	243	253	240	258	273	284	273	294	310	323	311	334	353	368	350	376	397	414	386	416	439	458
	Lo PR	114	121	132	141	120	128	140	149	125	133	145	155	131	140	153	163	138	147	160	170	143	152	166	176
	MBh	45.5	46.8	50.7	54.4	44.4	45.7	49.5	53.1	43.4	44.6	48.3	51.9	42.3	43.6	47.1	50.6	40.2	41.4	44.8	48.1	37.2	38.3	41.5	44.5
	S/T	0.84	0.75	0.57	0.36	0.87	0.77	0.59	0.38	0.89	0.79	0.60	0.39	0.92	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.96	0.86	0.65	0.42
	ΔT	33	31	25	17	34	31	25	18	34	31	25	18	34	31	26	18	33	31	25	17	31	29	24	16
<b>1050</b>	kW	2.11	2.15	2.21	2.28	2.26	2.31	2.38	2.46	2.40	2.45	2.53	2.61	2.52	2.58	2.66	2.74	2.63	2.68	2.77	2.86	2.71	2.77	2.86	2.96
	Amps	8.7	8.8	9.1	9.4	9.2	9.4	9.7	10.0	9.9	10.1	10.4	10.8	10.5	10.8	11.1	11.5	11.1	11.4	11.7	12.1	11.7	12.0	12.3	12.8
	Hi PR	213	229	242	253	239	257	272	284	272	293	309	322	310	333	352	367	349	375	396	413	385	415	438	457
	Lo PR	114	121	132	141	120	128	139	149	125	133	145	154	131	139	152	162	137	146	160	170	142	151	165	176
	MBh	43.2	44.5	48.1	51.7	42.2	43.4	47.0	50.5	41.2	42.4	45.9	49.3	40.2	41.4	44.8	48.1	38.2	39.3	42.5	45.7	35.4	36.4	39.4	42.3
	S/T	0.80	0.72	0.54	0.35	0.83	0.74	0.56	0.36	0.85	0.76	0.58	0.37	0.88	0.79	0.59	0.38	0.91	0.81	0.62	0.40	0.92	0.82	0.62	0.40
	ΔT	34	32	26	18	35	32	26	18	35	32	26	18	35	32	26	18	35	32	26	18	32	30	24	17
	kW	2.07	2.12	2.18	2.25	2.23	2.27	2.34	2.42	2.36	2.41	2.49	2.57	2.48	2.53	2.61	2.70	2.58	2.64	2.72	2.81	2.67	2.73	2.82	2.91
	Amps	8.5	8.7	8.9	9.2	9.1	9.3	9.6	9.9	9.8	10.0	10.3	10.6	10.4	10.6	10.9	11.3	10.9	11.2	11.5	11.9	11.5	11.8	12.1	12.5
	Hi PR	209	225	237	248	234	252	266	278	267	287	303	316	304	327	345	360	342	368	388	405	377	406	429	447
Lo PR	111	119	129	138	118	125	137	146	122	130	142	151	128	137	149	159	135	143	156	167	139	148	162	172	

IDB: Entering Indoor Dry Bulb Temperature  
 High & low pressures are measured at the liquid and suction access fittings.  
 Shaded area reflects ACCA (TVA) conditions  
 Amps: Unit amps (comp.+ evaporator + condenser fan motors)  
 kW = Total system power













# EXPANDED COOLING DATA — APG1560\*\*\*41\*\* — Two STAGE

IDB	OUTDOOR AMBIENT TEMPERATURE																																									
	65°F							75°F							85°F							95°F							105°F							115°F						
	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71										
70	ENTERING INDOOR WET BULB TEMPERATURE																																									
	AIRFLOW																																									
	2036																																									
	1810																																									
	1584																																									
	75	ENTERING INDOOR WET BULB TEMPERATURE																																								
		AIRFLOW																																								
		2036																																								
		1810																																								
		1584																																								

IDB: Entering Indoor Dry Bulb Temperature  
 High & low pressures are measured at the liquid and suction access fittings.

Shaded area reflects ACCA (TVA) conditions

kW = Total system power  
 Amps: Unit amps (comp.+ evaporator + condenser fan motors)



# AIRFLOW DATA

APG15240701A\* - RISE RANGE: 35° - 65°

UNIT STATIC	T1 - 1ST STAGE HEATING				T2 - 2ND STAGE HEATING				T3 - COOLING SPEED			T4 - COOLING SPEED			T5 - COOLING SPEED		
	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	CFM	WATTS	AMPS	CFM	WATTS	AMPS
0.1	742	84	0.75	52	907	134	1.18	57	857	116	1.04	907	134	1.18	1,040	185	1.33
0.2	677	89	0.82	57	857	140	1.24	61	816	126	1.16	857	140	1.24	988	198	1.40
0.3	631	97	0.90	62	814	149	1.32	64	760	131	1.18	814	149	1.32	949	208	1.42
0.4	575	101	0.92	X	761	154	1.33	X	721	140	1.25	761	154	1.33	903	213	1.49
0.5	526	111	1.01	X	727	165	1.41	X	670	145	1.31	727	165	1.41	871	222	1.55
0.6	-	-	-	-	678	169	1.47	X	629	155	1.39	678	169	1.47	824	228	1.58
0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APG153009041A\* - RISE RANGE: 45° - 75°

UNIT STATIC	T1 - 1ST STAGE HEATING				T2 - 2ND STAGE HEATING				T3 - COOLING SPEED			T4 - COOLING SPEED			T5 - COOLING SPEED		
	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	CFM	WATTS	AMPS	CFM	WATTS	AMPS
0.1	1065	168	1.42	49	1255	257	2.1	55	1,148	170	1.55	1,148	170	1.55	1,333	304	2.41
0.2	1003	174	1.48	52	1217	269	2.19	57	1,092	176	1.66	1,092	176	1.66	1,293	314	2.48
0.3	961	185	1.55	54	1165	274	2.21	59	1,044	184	1.72	1,044	184	1.72	1,237	321	2.54
0.4	913	195	1.62	57	1113	285	2.3	62	994	194	1.77	994	194	1.77	1,193	333	2.71
0.5	855	202	1.69	60	1073	296	2.36	64	929	210	1.89	929	210	1.89	1,158	341	2.77
0.6	814	212	1.76	63	1018	302	2.41	68	811	222	1.99	811	222	1.99	1,101	345	2.78
0.7	749	218	1.82	69	991	313	2.48	70	763	224	2.03	763	224	2.03	-	-	-
0.8	713	227	1.87	72	-	-	-	-	715	236	2.07	715	236	2.07	-	-	-

APG153709041A\* - RISE RANGE: 45° - 75°

UNIT STATIC	T1 - 1ST STAGE HEATING				T2 - 2ND STAGE HEATING				T3 - COOLING SPEED			T4 - COOLING SPEED			T5 - COOLING SPEED		
	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	CFM	WATTS	AMPS	CFM	WATTS	AMPS
0.1	1065	168	1.42	49	1255	257	2.1	55	1,148	170	1.55	1,148	170	1.55	1,418	360	2.92
0.2	1003	174	1.48	52	1217	269	2.19	57	1,092	176	1.66	1,092	176	1.66	1,375	371	3.00
0.3	961	185	1.55	54	1165	274	2.21	59	1,044	184	1.72	1,044	184	1.72	1,316	376	3.05
0.4	913	195	1.62	57	1113	285	2.3	62	994	194	1.77	994	194	1.77	1,279	387	3.13
0.5	855	202	1.69	60	1073	296	2.36	64	929	210	1.89	929	210	1.89	1,245	392	3.19
0.6	814	212	1.76	63	1018	302	2.41	68	811	222	1.99	811	222	1.99	1,193	400	3.22
0.7	749	218	1.82	69	991	313	2.48	70	763	224	2.03	763	224	2.03	-	-	-
0.8	713	227	1.87	72	-	-	-	-	715	236	2.07	715	236	2.07	-	-	-

# AIRFLOW DATA (CONT.)

APG154211541A\* - RISE RANGE: 45° -75°

UNIT STATIC	T1 - 1ST STAGE HEATING				T2 - 2ND STAGE HEATING				T3 - COOLING SPEED			T4 - COOLING SPEED			T5 - COOLING SPEED		
	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	CFM	WATTS	AMPS	CFM	WATTS	AMPS
0.1	1065	168	1.42	49	1255	257	2.1	55	1,335	260	1.01	1,468	337	1.28	1,619	431	1.64
0.2	1003	174	1.48	52	1217	269	2.19	57	1,274	268	1.04	1,412	349	1.33	1,560	445	1.69
0.3	961	185	1.55	54	1165	274	2.21	59	1,204	281	1.1	1,346	359	1.37	1,504	456	1.71
0.4	913	195	1.62	57	1113	285	2.3	62	1,136	287	1.11	1,275	363	1.4	1,441	463	1.76
0.5	855	202	1.69	60	1073	296	2.36	64	1,069	300	1.15	1,221	370	1.44	1,380	475	1.80
0.6	814	212	1.76	63	1018	302	2.41	68	1,009	312	1.19	1,170	386	1.47	1,325	489	1.84
0.7	749	218	1.82	69	991	313	2.48	70	946	319	1.22	1,105	397	1.52	1,268	495	1.88
0.8	713	227	1.87	72	-	-	-	-	886	331	1.27	1,042	406	1.54	1,198	502	1.90

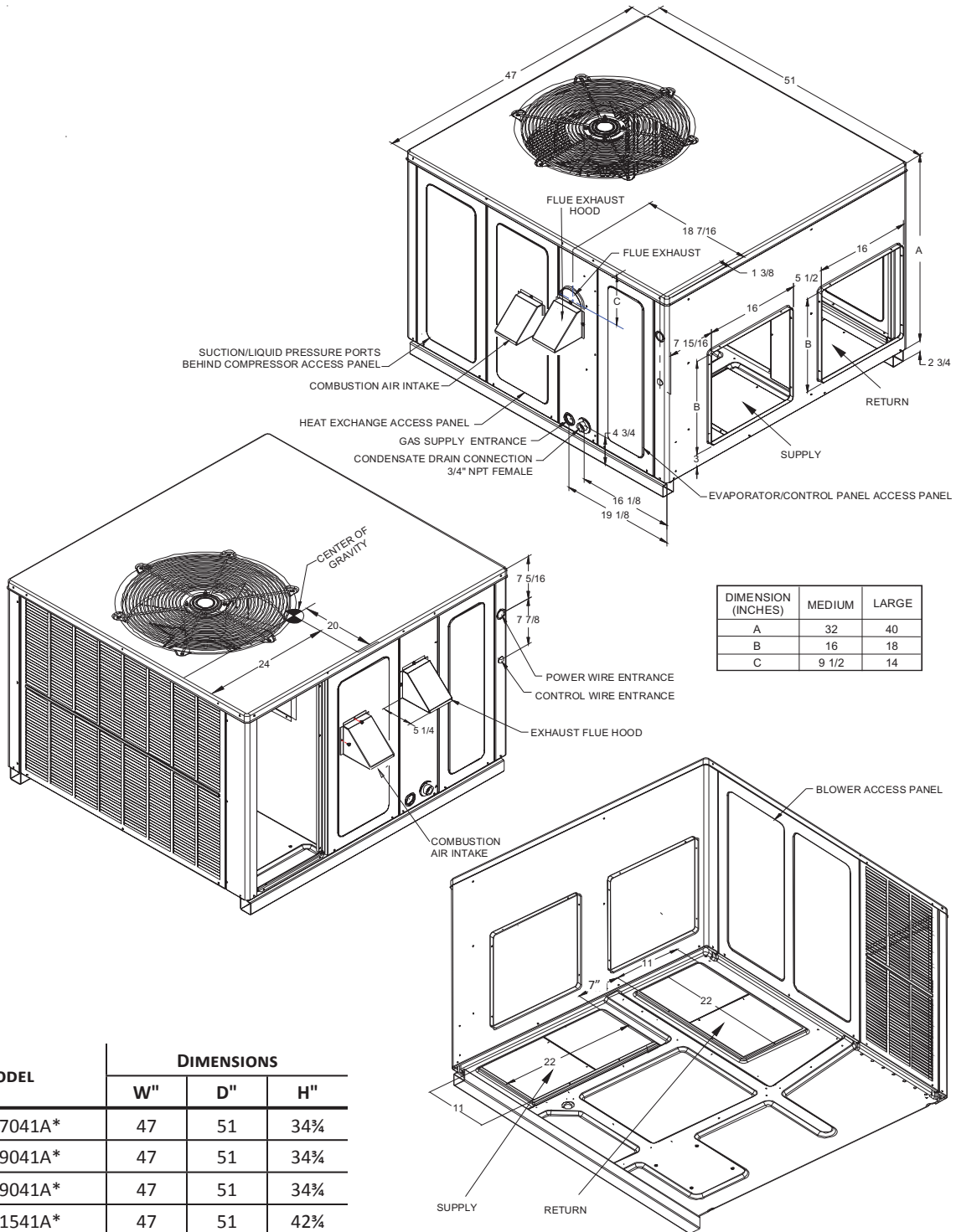
APG154911541A\* - RISE RANGE: 45° - 75°

UNIT STATIC	T1 - 1ST STAGE HEATING				T2 - 2ND STAGE HEATING				T3 - COOLING SPEED			T4 - COOLING SPEED			T5 - COOLING SPEED		
	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	CFM	WATTS	AMPS	CFM	WATTS	AMPS
0.1	1140	178	1.52	56	1417	305	2.46	61	1,468	337	1.28	1,468	337	1.28	1,696	503	4.04
0.2	1090	188	1.57	59	1374	318	2.56	63	1,412	349	1.33	1,412	349	1.33	1,650	517	4.15
0.3	1038	199	1.67	62	1322	327	2.68	65	1,346	359	1.37	1,346	359	1.37	1,608	530	4.25
0.4	980	212	1.76	65	1273	338	2.72	68	1,275	363	1.4	1,275	363	1.4	1,566	543	4.39
0.5	914	220	1.79	70	1224	352	2.82	70	1,221	370	1.44	1,221	370	1.44	1,523	556	4.43
0.6	852	231	1.9	75	1176	365	2.88	73	1,170	386	1.47	1,170	386	1.47	1,480	569	4.55
0.7	806	242	1.97	X	1121	379	2.93	X	1,105	397	1.52	1,105	397	1.52	1,441	580	4.65
0.8	741	248	2.01	X	1068	391	2.98	X	1,042	406	1.54	1,042	406	1.54	-	-	-

APG156014041A\* - RISE RANGE: 45° - 75° HIGH; 30° - 60° LOW

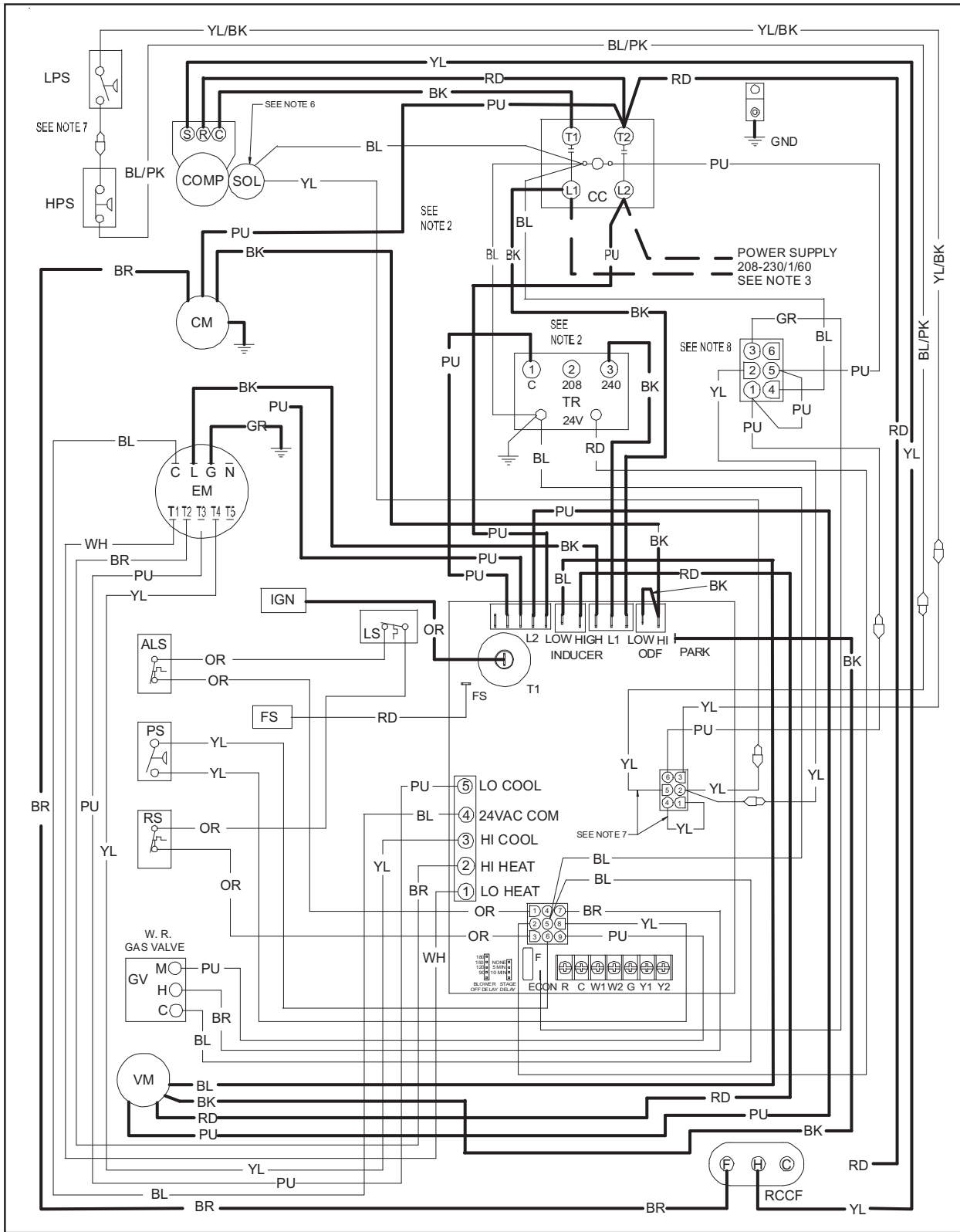
UNIT STATIC	T1 - 1ST STAGE HEATING				T2 - 2ND STAGE HEATING				T3 - COOLING SPEED			T4 - COOLING SPEED			T5 - COOLING SPEED		
	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	RISE	CFM	WATTS	AMPS	CFM	WATTS	AMPS	CFM	WATTS	AMPS
0.1	1773	488	3.64	43	1773	488	3.64	58	1,379	246	1.95	1,919	700	4.81	2,115	783	5.54
0.2	1713	501	3.73	45	1713	501	3.73	61	1,322	258	2.03	1,862	714	4.94	2,078	787	5.57
0.3	1693	509	3.78	45	1693	509	3.78	61	1,268	266	2.1	1,810	720	5.01	2,009	802	5.67
0.4	1653	518	3.84	46	1653	518	3.84	63	1,187	280	2.19	1,755	734	5.07	1,953	813	5.87
0.5	1597	529	3.91	48	1597	529	3.91	65	1,133	287	2.23	1,705	743	5.09	1,933	805	5.77
0.6	1534	541	3.99	50	1534	541	3.99	68	1,068	294	2.29	1,647	748	5.16	-	-	-
0.7	1485	552	4.09	52	1485	552	4.09	70	1,026	307	2.38	-	-	-	-	-	-
0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

# DIMENSIONS



MODEL	DIMENSIONS		
	W"	D"	H"
APG152407041A*	47	51	34 3/4
APG153009041A*	47	51	34 3/4
APG153709041A*	47	51	34 3/4
APG154211541A*	47	51	42 3/4
APG154911541A*	47	51	42 3/4
APG156014041A*	47	51	42 3/4

# WIRING DIAGRAM



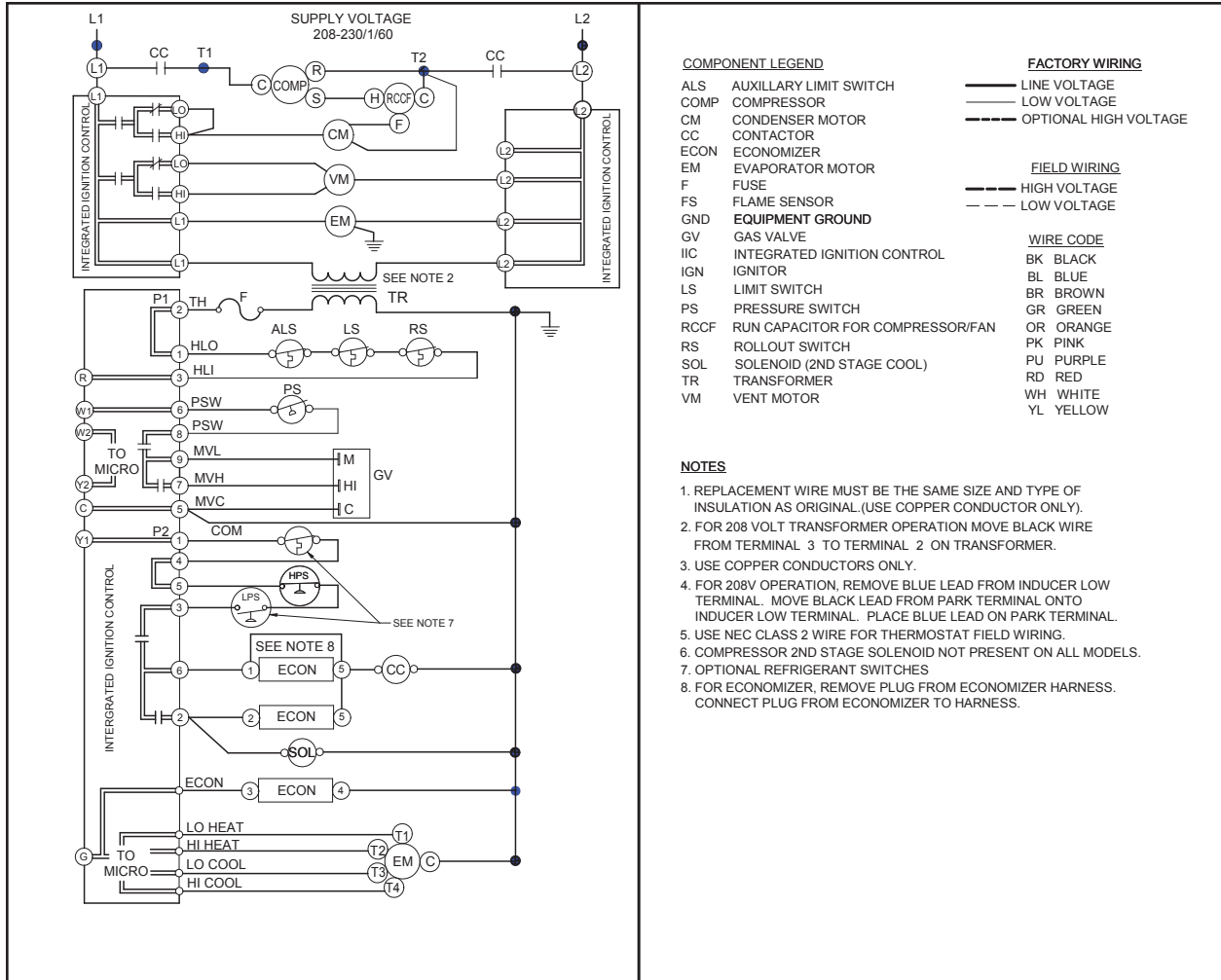
Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.



**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 DIAGRAM (CONT.)



- COMPONENT LEGEND**
- ALS AUXILIARY LIMIT SWITCH
  - COMP COMPRESSOR
  - CM CONDENSER MOTOR
  - CC CONTACTOR
  - ECON ECONOMIZER
  - EM EVAPORATOR MOTOR
  - F FUSE
  - FS FLAME SENSOR
  - GND EQUIPMENT GROUND
  - GV GAS VALVE
  - IIC INTEGRATED IGNITION CONTROL
  - IGN IGNITOR
  - LS LIMIT SWITCH
  - PS PRESSURE SWITCH
  - RCCF RUN CAPACITOR FOR COMPRESSOR/FAN
  - RS ROLLOUT SWITCH
  - SOL SOLENOID (2ND STAGE COOL)
  - TR TRANSFORMER
  - VM VENT MOTOR
- 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
  - OR ORANGE
  - PK PINK
  - PU PURPLE
  - RD RED
  - WH WHITE
  - YL YELLOW

- NOTES**
1. REPLACEMENT WIRE MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL. (USE COPPER CONDUCTOR ONLY).
  2. FOR 208 VOLT TRANSFORMER OPERATION MOVE BLACK WIRE FROM TERMINAL 3 TO TERMINAL 2 ON TRANSFORMER.
  3. USE COPPER CONDUCTORS ONLY.
  4. FOR 208V OPERATION, REMOVE BLUE LEAD FROM INDUCER LOW TERMINAL. MOVE BLACK LEAD FROM PARK TERMINAL ONTO INDUCER LOW TERMINAL. PLACE BLUE LEAD ON PARK TERMINAL.
  5. USE NEC CLASS 2 WIRE FOR THERMOSTAT FIELD WIRING.
  6. COMPRESSOR 2ND STAGE SOLENOID NOT PRESENT ON ALL MODELS.
  7. OPTIONAL REFRIGERANT SWITCHES
  8. FOR ECONOMIZER, REMOVE PLUG FROM ECONOMIZER HARNESS. CONNECT PLUG FROM ECONOMIZER TO HARNESS.

DIAGNOSTIC LED - RED	STATUS	CHECK
ON	NORMAL OPERATION	-
OFF	NO POWER OR INTERNAL CONTROL FAULT	CHECK INPUT POWER CHECK FUSE(S) REPLACE CONTROL
1 FLASH	IGNITION FAILURE	GAS FLOW GAS PRESSURE GAS VALVE FLAME SENSOR
2 FLASHES	PRESSURE SWITCH OPEN	CHECK PRESSURE SWITCH CHECK TUBING CHECK VENT MOTOR
3 FLASHES	PRESSURE SWITCH CLOSED WITHOUT INDUCER ON	CHECK PRESSURE SWITCH CHECK WIRING FOR SHORTS
4 FLASHES	OPEN LIMIT SWITCH	CHECK MAIN LIMIT SWITCH CHECK AUXILIARY LIMIT SW. CHECK ROLLOUT LIMIT SW.
5 FLASHES	FALSE FLAME DETECTED	CHECK GAS VALVE CHECK FOR SHORTS IN FLAME SENSOR WIRING
6 FLASHES	COMPR. SHORT CYCLE DELAY	3 MIN COMP. SHORT CYCLE DELAY

DIAGNOSTIC LED - RED	STATUS	CHECK
7 FLASHES	LIMIT OPEN 5 TIMES IN SAME CALL FOR HEAT	CHECK MAIN LIMIT SWITCH CHECK AUXILIARY LIMIT SW.
8 FLASHES	IDT/ODT OPEN	CHECK JUMPER BETWEEN 1 AND 4 ON 6-CIRCUIT CONNECTOR CHECK OPTIONAL REFRIGERANT SWITCHES
9 FLASHES	PSW/LOC OPEN	CHECK REFRIGERANT SWITCHES FOR LOSS OF CHARGE OR HIGH HEAD PRESSURE

DIAGNOSTIC LED - AMBER	STATUS	CHECK
OFF	NO FLAME PRESENT	-
ON	NORMAL FLAME PRESENT	-
1 FLASH	LOW FLAME SIGNAL	GAS FLOW GAS PRESSURE GAS VALVE FLAME SENSOR
2 FLASHES	FALSE FLAME DETECTED	CHECK GAS VALVE CHECK FOR SHORTS IN FLAME SENSOR WIRING

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

**WARNING**

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



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