

COOLING CAPACITY: 22,800 – 58,500 BTU/H
HEATING CAPACITY: 60,000 – 140,000 BTU/H

**HIGH-EFFICIENCY
PACKAGED GAS / ELECTRIC
2 TO 5 TONS
UP TO 16 SEER / 81% AFUE**



5 Tons

2 - 4 Tons



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Standard Features

- Heavy-duty stainless-steel heat exchanger
- High-efficiency two-stage scroll compressor with factory-installed sound blanket
- Variable-speed ECM indoor blower motor
- Copper tube / aluminum fin condenser coils
- All-aluminum evaporator coil on 2- to 4-ton units
- Aluminum-copper evaporator coil on 5-ton units
- Two-stage gas valve; natural gas with easy conversion to propane with accessory kit
- Power-assisted combustion
- AHRI Certified; ETL Listed
- All blower operation and all safety circuits complete with self-diagnostics
- Direct-spark ignition system, including a micro-processor-based control for the entire ignition sequence
- Loss-of-charge protection and high-pressure switch
- California Low NOx approved
- For installation in California's South Coast Air Quality Management District (SCAQMD) only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J NOx emission limit, and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the SCAQMD Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.




Cabinet Features

- Fully insulated heavy-gauge, zinc-coated steel cabinet with UV-resistant powder-paint finish
- Aluminum foil-facing internal insulation reinforced with fiberglass scrim
- Compressor grommets for vibration isolation
- Convenient access panels
- One roof curb fits 2-4 ton units
- Bottom 2" high base rails for easier handling
- 2-4 ton models fit a standard-size pick-up truck
- When properly anchored, meets 2010 Florida Building Code unit integrity requirements for hurricane-type winds (Anchor bracket kits available.)



* Complete warranty details available from your local dealer or at www.amana-hac.com. To receive the Lifetime Heat Exchanger Limited Warranty, Lifetime Compressor Limited Warranty (in each case, good for as long as you own your home), 2-Year Unit Limited Warranty and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration and some of the additional requirements are not required in California or Quebec.

	A	P	G	16	36	080	M	4	1	**	
	1	2	3	4,5	6,7	8,9,10	11	12	13	14,15	
Brand	A Amana® brand										Engineering
											Major/ Minor Revisions (not used for inventory control)
Product Category	P Packaged Unit										Electrical
											1 208-230/1/60
Unit Type	G Gas/Electric D Dual-Fuel										Refrigerant
											4 R-410A
Efficiency	14 14 SEER 16 16 SEER										Airflow
											M Multi-Position
Nominal Capacity	24 2 Tons 36 3 Tons 42 3½ Tons 30 2½ tons 37 3 Tons 48 4 Tons 60 5 Tons										Heat Input
											60 60 MBTU/h 100 100 MBTU/h 80 80 MBTU/h 120 120 MBTU/h 140 138 MBTU/h

	APG1624 060M41AA	APG1630 080M41AA	APG1636 080M41AA	APG1642 100M41AA	APG1648 100M41AA	APG1660 140M41A*
COOLING CAPACITY (BTU/H)						
Total	22,800	28,600	34,200	40,000	45,500	58,500
Sensible	18,200	21,800	27,400	29,600	32,800	43,500
SEER / EER	16.0 / 12.0	15.5 / 12.0	16.0 / 12.0	16.0 / 12.0	16.0 / 12.0	16.0 / 12.0
Decibels	76	76	76	78	78	78
AHRI #s	8082388	8082389	8082390	8082391	8082392	9134478
HEATING CAPACITY (BTU/H)						
High-Fire Input / Output	60,000 / 47,000	80,000 / 62,000	80,000 / 62,000	100,000 / 78,000	100,000 / 78,000	138,000 / 112,000
Low-Fire Input / Output	45,000 / 35,000	60,000 / 47,000	60,000 / 47,000	75,000 / 58,000	75,000 / 58,000	103,000 / 84,000
AFUE	81	81	81	81	81	81
Temperature Rise Range	35- 65	35- 65	35- 65	35- 65	35- 65	55-105
No. of Burners	3	4	4	5	5	6
Orifice Size (Gas / LP)	45 / 1.25mm	45 / 1.25mm	45 / 1.25mm	45 / 1.25mm	45 / 1.25mm	53 / 1.51MM
EVAPORATOR MOTOR						
Type	ECM	ECM	ECM	ECM	ECM	ECM
Wheel (DxW)	10" x 8"	10" x 9"	11" x 10"	11" x 10"	11" x 10"	11" x 10"
Indoor Nominal CFM	800	950	1,200	1,250	1,300	1,850
Motor Speed Tap (Cooling)	Variable	Variable	Variable	Variable	Variable	Variable
RPM / Amps (Cooling)	1050 / 4.3	1050 / 4.3	1050 / 6.8	1050 / 6.8	1050 / 6.8	1050 / 7
Horsepower / RPM	1/2	1/2	3/4	3/4	3/4	1
EVAPORATOR COIL						
Face Area (ft ²)	4.3	4.3	5.7	5.7	5.7	8.9
Rows Deep / Fin per Inch	3 / 14	3 / 14	4 / 14	4 / 14	4 / 14	4 / 16
Expansion Device	TXV	TXV	TXV	TXV	TXV	TXV
Filter Size (ft ²)	3.5	4.3	4.3	5.6	5.6	8.9
Drain Size (NPT)	¾"	¾"	¾"	¾"	¾"	¾"
Refrigerant Charge-- R-410A (oz.)	70	70	158	143	100	154
CONDENSER FAN / COIL						
Horsepower- RPM	1/6- 815	1/4- 830	1/4- 830	1/4- 1,075	1/4- 1,075	1/3- 1,095
Fan Diameter / # of Fan Blades	22" / 3	22" / 3	22" / 3	22" / 3	22" / 3	22" / 4
Outdoor Nominal CFM	2,200	2,200	2,600	3,200	3,100	4,200
Face Area (ft ²)	12.3	8.7	14.9	14.9	14.4	19
Row Deep / Fins per Inch	1 / 24	2 / 27	2 / 16	2 / 16	2 / 27	2 / 27
COMPRESSOR						
Quantity / Type / Stage	1 / Scroll / 2	1 / Scroll / 2	1 / Scroll / 2	1 / Scroll / 2	1 / Scroll / 2	1 / Scroll / 2
Compressor RLA / LRA	11.7 / 58.3	13.1 / 73.0	15.3 / 83.0	17.9 / 96.0	21.2 / 104.0	27 / 153
ELECTRICAL DATA						
Voltage/ Phase (60 Hz)	208/230-1	208/230-1	208/230-1	208/230-1	208/230-1	208/230-1
Indoor Blower FLA	4.3	4.3	6.8	6.8	6.8	7
Outdoor Fan FLA / LRA	1.1 / 1.7	1.5 / 3.0	1.5 / 3.0	1.4 / 2.9	1.4 / 2.9	2 / 4.4
Total Unit Amps	17.1	18.9	23.6	26.1	29.4	36
Min. Circuit Ampacity ¹	20.0	22.2	27.4	30.6	34.7	43.0
Max. Overcurrent Protection ²	30 amps	35 amps	40 amps	45 amps	50 amps	60 amps
Entrance Size Power Supply	1½"	1½"	1½"	1½"	1½"	1½"
Entrance Size Control Voltage	¾"	¾"	¾"	¾"	¾"	1/2"
OPERATING / SHIP WEIGHTS (LBS)						
	370 / 380	397 / 407	470 / 480	495 / 505	490 / 500	630 / 655
ENERGY STAR® CERTIFIED						
	NO	NO				NO

¹ Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

² Must use time-delay 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.

IDB		OUTDOOR AMBIENT TEMPERATURE																													
		65					75					85					95					105					115				
		ENTERING INDOOR WET BULB TEMPERATURE																													
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71						
1062	MBh	29.7	30.7	33.7	-	29.0	30.0	32.9	-	28.3	29.3	32.1	-	27.6	28.6	31.3	-	26.2	27.2	29.8	-	24.3	25.2	27.6							
	S/T	0.77	0.64	0.44	-	0.80	0.66	0.46	-	0.82	0.68	0.47	-	0.84	0.70	0.49	-	0.87	0.73	0.51	-	0.88	0.74	0.51							
	ΔT	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	19	16	12							
	kW	1.98	2.02	2.08	-	2.13	2.18	2.25	-	2.27	2.32	2.39	-	2.39	2.44	2.52	-	2.49	2.55	2.63	-	2.58	2.64	2.73							
	Amps	8.5	8.7	9.0	-	9.1	9.3	9.6	-	9.8	10.0	10.3	-	10.4	10.7	11.0	-	11.0	11.3	11.6	-	11.6	11.9	12.2							
	HI PR	238	257	271	-	268	288	304	-	304	327	346	-	347	373	394	-	390	420	443	-	431	464	490							
	LO PR	108	114	125	-	114	121	132	-	118	126	137	-	124	132	144	-	130	138	151	-	134	143	156							
	MBh	28.8	29.9	32.7	-	28.1	29.2	31.9	-	27.5	28.5	31.2	-	26.8	27.8	30.4	-	25.5	26.4	28.9	-	23.6	24.4	26.8							
S/T	0.73	0.61	0.42	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.80	0.67	0.46	-	0.83	0.70	0.48	-	0.84	0.70	0.49								
ΔT	20	18	13	-	21	18	14	-	21	18	14	-	21	18	14	-	21	18	14	-	19	17	13								
kW	1.96	2.00	2.07	-	2.11	2.16	2.23	-	2.25	2.30	2.37	-	2.37	2.42	2.50	-	2.47	2.53	2.61	-	2.56	2.62	2.70								
Amps	8.5	8.7	8.9	-	9.1	9.3	9.5	-	9.8	10.0	10.3	-	10.3	10.6	10.9	-	10.9	11.2	11.5	-	11.5	11.8	12.1								
HI PR	236	254	268	-	265	285	301	-	301	324	342	-	343	369	390	-	386	415	439	-	427	459	485								
LO PR	106	113	124	-	112	120	131	-	117	124	136	-	123	131	143	-	129	137	149	-	133	142	155								
MBh	26.6	27.6	30.2	-	26.0	26.9	29.5	-	25.3	26.3	28.8	-	24.7	25.6	28.1	-	23.5	24.3	26.7	-	21.8	22.6	24.7								
S/T	0.71	0.59	0.41	-	0.73	0.61	0.42	-	0.75	0.63	0.43	-	0.77	0.65	0.45	-	0.80	0.67	0.46	-	0.81	0.68	0.47								
ΔT	21	18	14	-	21	18	14	-	21	18	14	-	21	18	14	-	21	18	14	-	20	17	13								
kW	1.91	1.95	2.02	-	2.06	2.11	2.17	-	2.19	2.24	2.31	-	2.31	2.36	2.44	-	2.41	2.46	2.54	-	2.49	2.55	2.63								
Amps	8.3	8.5	8.7	-	8.9	9.0	9.3	-	9.5	9.7	10.0	-	10.1	10.3	10.6	-	10.7	10.9	11.2	-	11.2	11.5	11.8								
HI PR	229	246	260	-	257	277	292	-	292	314	332	-	333	358	378	-	374	403	426	-	414	445	470								
LO PR	103	110	120	-	109	116	127	-	113	121	132	-	119	127	138	-	125	133	145	-	129	137	150								

IDB: Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service valves.
 Shaded area reflects ACCA (TVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp.+fan)

IDB		OUTDOOR AMBIENT TEMPERATURE																													
		65					75					85					95					105					115				
		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75
AIRFLOW		59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75
		ENTERING INDOOR WET BULB TEMPERATURE																													
80	MBh	44.3	45.2	48.3	51.6	50.4	42.2	43.1	46.1	49.2	48.0	41.2	42.1	44.9	48.0	46.6	40.0	40.8	43.6	46.6	44.3	38.0	38.8	41.4	44.3	41.0	36.2	37.0	39.5	42.3	37.9
	S/T	0.93	0.87	0.71	0.53	0.55	1.00	0.93	0.75	0.56	0.58	1.00	0.96	0.78	0.58	0.56	1.00	0.95	0.74	0.56	0.58	1.00	0.96	0.77	0.58	0.58	1.00	1.00	0.82	0.61	0.56
	ΔT	27	26	22	18	18	28	26	23	18	18	27	26	23	18	18	28	27	24	19	19	28	27	23	19	17	24	24	21	17	17
	KW	2.81	2.87	2.96	3.05	3.30	3.22	3.29	3.40	3.51	3.70	3.39	3.46	3.58	3.70	3.86	3.53	3.61	3.55	3.67	3.82	3.50	3.58	3.70	3.82	3.96	3.65	3.74	3.86	3.99	3.86
	Amps	12.4	12.6	13.0	13.4	14.3	14.2	14.5	14.9	15.4	15.4	15.1	15.4	15.8	16.4	17.3	15.9	16.3	15.7	16.2	17.2	15.8	16.1	16.6	17.2	18.1	16.7	17.1	17.6	18.2	18.2
	HI PR	244	262	277	289	324	311	335	354	369	369	354	381	403	420	420	399	429	399	416	468	395	425	449	468	517	441	474	501	522	522
LO PR	111	118	129	137	145	122	130	142	151	145	128	136	149	158	152	134	143	147	157	164	133	141	154	164	170	139	148	161	172	172	
85	MBh	43.0	43.9	46.9	50.1	49.0	41.0	41.9	44.7	47.8	46.3	40.0	40.8	43.6	46.6	44.3	38.0	38.8	41.4	44.3	41.0	35.2	35.9	38.4	41.0	37.9	36.9	37.6	39.3	42.0	40.8
	S/T	0.89	0.83	0.68	0.51	0.52	0.94	0.88	0.72	0.54	0.56	0.97	0.91	0.74	0.56	0.58	1.00	0.95	0.74	0.56	0.58	1.00	0.96	0.77	0.58	0.56	1.00	1.00	0.93	0.75	0.75
	ΔT	28	27	23	19	19	28	27	24	19	19	28	27	24	19	19	28	27	24	19	19	28	27	23	19	18	27	26	22	18	18
	KW	2.72	2.78	2.86	2.96	3.19	3.11	3.18	3.28	3.39	3.57	3.27	3.35	3.46	3.57	3.73	3.41	3.49	3.41	3.57	3.73	3.41	3.49	3.60	3.73	3.86	3.53	3.61	3.73	3.86	3.86
	Amps	12.0	12.2	12.6	13.0	13.9	13.8	14.0	14.5	14.9	14.9	14.6	14.9	15.3	15.8	16.7	15.4	15.7	15.7	16.2	17.2	15.4	15.7	16.2	16.7	17.6	16.2	16.6	17.1	17.6	17.6
	HI PR	234	252	266	278	311	299	322	340	354	354	340	366	387	403	403	383	412	387	403	454	383	412	435	454	501	423	455	481	501	501
LO PR	107	113	124	132	139	117	125	136	145	145	123	131	143	152	152	129	137	147	152	159	129	137	150	159	165	133	142	155	165	165	
1101	MBh	45.0	45.9	48.1	51.3	50.1	42.9	43.8	45.8	48.9	47.5	41.9	42.7	44.7	47.7	46.3	40.7	41.5	43.4	46.3	43.0	38.6	39.4	41.2	44.0	40.8	36.9	37.6	39.3	42.0	40.8
	S/T	0.98	0.94	0.85	0.69	0.71	1.00	0.90	0.73	0.52	0.54	1.00	0.93	0.76	0.54	0.56	1.00	0.98	0.89	0.72	0.72	1.00	0.99	0.89	0.72	0.72	1.00	1.00	0.98	0.79	0.75
	ΔT	29	28	27	23	23	28	29	27	23	23	27	28	27	24	24	30	30	28	24	24	28	29	28	24	23	24	25	25	22	23
	KW	2.83	2.89	2.98	3.08	3.32	3.24	3.32	3.42	3.54	3.73	3.41	3.49	3.61	3.73	3.89	3.53	3.61	3.55	3.70	3.86	3.53	3.61	3.76	3.89	4.03	3.68	3.77	3.89	4.03	4.03
	Amps	12.5	12.7	13.1	13.5	14.4	14.3	14.6	15.0	15.5	15.5	15.2	15.5	16.0	16.5	17.5	16.0	16.4	16.4	16.5	17.5	16.0	16.4	16.9	17.5	18.4	16.9	17.3	17.8	18.4	18.4
	HI PR	246	265	280	292	328	314	338	357	372	372	358	385	407	424	424	403	433	403	424	477	403	433	458	477	527	445	479	506	527	527
LO PR	112	119	130	139	147	123	131	143	152	152	129	138	150	160	160	136	144	144	157	168	136	144	157	168	173	140	149	163	173	173	
1410	MBh	43.7	44.6	46.7	49.8	48.6	41.7	42.5	44.5	47.5	46.3	40.7	41.5	43.4	46.3	43.0	38.6	39.4	41.2	44.0	40.8	35.8	36.5	38.2	40.8	37.9	36.9	37.6	39.3	42.0	40.8
	S/T	0.93	0.90	0.81	0.66	0.68	0.99	0.95	0.86	0.70	0.72	1.00	0.98	0.89	0.72	0.72	1.00	0.99	0.89	0.72	0.72	1.00	0.99	0.89	0.72	0.72	1.00	1.00	0.93	0.75	0.75
	ΔT	30	29	28	24	24	30	30	28	24	24	30	30	28	24	24	28	29	28	24	24	28	29	28	24	23	26	27	26	23	23
	KW	2.81	2.87	2.96	3.05	3.30	3.22	3.29	3.40	3.51	3.70	3.39	3.46	3.58	3.70	3.86	3.53	3.61	3.55	3.70	3.86	3.53	3.61	3.73	3.86	3.99	3.65	3.74	3.86	3.99	3.99
	Amps	12.4	12.6	13.0	13.4	14.3	14.2	14.5	14.9	15.4	15.4	15.1	15.4	15.8	16.4	17.3	15.9	16.3	16.3	16.7	17.3	15.9	16.3	16.7	17.3	18.2	16.7	17.1	17.6	18.2	18.2
	HI PR	244	262	277	289	324	311	335	354	369	369	354	381	403	420	420	399	429	399	429	477	399	429	453	473	522	441	474	501	522	522
LO PR	111	118	129	137	145	122	130	142	151	145	128	136	149	158	152	134	143	143	156	166	134	143	156	166	172	139	148	161	172	172	

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 Shaded area reflects AHRI (TVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp.+fan)

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE																								
		65				75				85				95				105				115				
		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	2221	MBh	58.1	60.2	66.0	-	56.8	58.8	64.5	-	55.4	57.4	62.9	-	54.1	56.0	61.4	-	51.4	53.2	58.3	-	47.6	49.3	54.0	-
		S/T	0.78	0.65	0.45	-	0.80	0.67	0.47	-	0.83	0.69	0.48	-	0.85	0.71	0.49	-	0.88	0.74	0.51	-	0.89	0.74	0.52	-
		Δ T	19	16	12	-	19	16	12	-	19	16	12	-	19	16	13	-	19	16	12	-	18	15	12	-
		KW	3.87	3.95	4.07	-	4.15	4.24	4.36	-	4.40	4.49	4.63	-	4.62	4.71	4.86	-	4.80	4.90	5.06	-	4.96	5.07	5.23	-
		Amps	18.0	18.3	18.8	-	19.1	19.5	20.0	-	20.5	20.9	21.4	-	21.6	22.0	22.6	-	22.7	23.2	23.8	-	23.9	24.4	25.0	-
1980	HI PR	194	209	221	-	218	235	248	-	248	267	282	-	283	304	321	-	318	342	361	-	351	378	399	-	
	LO PR	112	119	130	-	118	126	137	-	123	131	143	-	129	137	150	-	135	144	157	-	140	149	163	-	
	MBh	56.4	58.5	64.1	-	55.1	57.1	62.6	-	53.8	55.8	61.1	-	52.5	54.4	59.6	-	49.9	51.7	56.6	-	46.2	47.9	52.4	-	
	S/T	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.79	0.66	0.46	-	0.81	0.68	0.47	-	0.84	0.70	0.49	-	0.85	0.71	0.49	-	
	Δ T	19	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	18	16	12	-	
1752	KW	3.84	3.92	4.04	-	4.12	4.20	4.33	-	4.36	4.46	4.59	-	4.58	4.68	4.82	-	4.77	4.87	5.02	-	4.92	5.03	5.19	-	
	Amps	17.9	18.2	18.7	-	19.0	19.4	19.9	-	20.3	20.7	21.3	-	21.4	21.9	22.5	-	22.6	23.0	23.7	-	23.7	24.2	24.8	-	
	HI PR	193	207	219	-	216	232	245	-	246	264	279	-	280	301	318	-	315	339	358	-	348	374	395	-	
	LO PR	111	118	129	-	117	125	136	-	122	129	141	-	128	136	148	-	134	143	156	-	139	147	161	-	
	MBh	53.6	55.6	60.9	-	52.4	54.3	59.5	-	51.1	53.0	58.0	-	49.9	51.7	56.6	-	47.4	49.1	53.8	-	43.9	45.5	49.8	-	

IDB	AIRFLOW	OUTDOOR AMBIENT TEMPERATURE																								
		65				75				85				95				105				115				
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
75	2221	MBh	59.1	60.8	65.9	70.7	57.7	59.4	64.3	69.0	56.3	58.0	62.8	67.4	55.0	56.6	61.3	65.8	52.2	53.8	58.2	62.5	48.4	49.8	53.9	57.9
		S/T	0.88	0.79	0.60	0.38	0.91	0.82	0.62	0.40	0.94	0.84	0.63	0.41	0.97	0.87	0.66	0.42	1.00	0.90	0.68	0.44	1.00	0.91	0.69	0.44
		Δ T	22	20	16	11	22	20	16	11	22	20	17	11	22	20	17	11	22	20	16	11	20	19	15	11
		KW	3.90	3.98	4.10	4.22	4.18	4.27	4.40	4.54	4.43	4.53	4.67	4.81	4.65	4.75	4.90	5.06	4.84	4.95	5.10	5.27	5.00	5.11	5.27	5.45
		Amps	18.1	18.5	18.9	19.5	19.3	19.7	20.2	20.8	20.6	21.0	21.6	22.3	21.8	22.2	22.8	23.5	22.9	23.4	24.0	24.8	24.0	24.5	25.2	26.1
1980	HI PR	196	211	223	233	220	237	250	261	251	270	285	297	285	307	324	338	321	346	365	381	355	382	403	421	
	LO PR	113	120	131	140	119	127	139	148	124	132	144	154	130	139	151	161	137	145	159	169	141	150	164	175	
	MBh	57.4	59.1	63.9	68.6	56.0	57.7	62.5	67.0	54.7	56.3	61.0	65.4	53.4	55.0	59.5	63.8	50.7	52.2	56.5	60.6	47.0	48.4	52.3	56.2	
	S/T	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.89	0.80	0.61	0.39	0.92	0.83	0.63	0.40	0.96	0.86	0.65	0.42	0.97	0.86	0.65	0.42	
	Δ T	22	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	21	19	16	11	
1752	KW	3.87	3.95	4.07	4.19	4.15	4.24	4.37	4.50	4.40	4.49	4.63	4.78	4.62	4.72	4.86	5.02	4.80	4.91	5.06	5.22	4.96	5.07	5.23	5.40	
	Amps	18.0	18.3	18.8	19.4	19.1	19.5	20.0	20.6	20.5	20.9	21.4	22.1	21.6	22.0	22.6	23.4	22.7	23.2	23.9	24.6	23.9	24.4	25.0	25.9	
	HI PR	194	209	221	230	218	235	248	259	248	267	282	294	283	304	321	335	318	342	361	377	351	378	399	416	
	LO PR	112	119	130	138	118	126	137	146	123	131	143	152	129	137	150	160	135	144	157	167	140	149	163	173	
	MBh	54.5	56.1	60.7	65.2	53.2	54.8	59.3	63.7	52.0	53.5	57.9	62.2	50.7	52.2	56.5	60.6	48.2	49.6	53.7	57.6	44.6	45.9	49.7	53.4	

IDB: Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service valves.
 Design Subcooling, 5-7 °F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat: 15-18°F @ the compressor suction access fitting connection.
 Shaded area reflects ACCA (TVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp.+fan)

IDB		OUTDOOR AMBIENT TEMPERATURE												ENTERING INDOOR WET BULB TEMPERATURE																							
		65						75						85						95						105						115					
		59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79
2221	MBh	60.1	61.5	65.7	70.2	58.7	60.0	64.1	68.6	57.4	58.6	62.6	66.9	56.0	57.2	61.1	65.3	53.2	54.3	58.0	62.0	53.2	54.3	58.0	62.0	49.2	50.3	53.8	57.5								
	S/T	0.97	0.91	0.74	0.55	1.00	0.94	0.77	0.57	1.00	0.96	0.79	0.59	1.00	1.00	0.81	0.61	1.00	1.00	0.84	0.63	1.00	1.00	0.84	0.63	1.00	1.00	0.85	0.63								
	Δ T	24	23	20	16	24	23	20	16	24	23	20	16	23	24	20	16	22	22	20	16	22	22	20	16	20	21	19	15								
	KW	3.93	4.01	4.13	4.25	4.22	4.30	4.43	4.57	4.47	4.56	4.70	4.85	4.69	4.79	4.94	5.10	4.88	4.99	5.14	5.31	5.04	5.15	5.32	5.49	5.04	5.15	5.32	5.49								
	Amps	18.3	18.6	19.1	19.6	19.4	19.8	20.3	20.9	20.8	21.2	21.8	22.4	21.9	22.4	23.0	23.7	23.1	23.6	24.2	25.0	24.2	24.7	25.4	26.3	24.2	24.7	25.4	26.3								
	Hi PR	198	214	225	235	223	240	253	264	253	272	288	300	288	310	328	342	324	349	369	385	358	386	407	425	358	386	407	425								
	LO PR	114	122	133	141	121	128	140	149	125	133	146	155	132	140	153	163	138	147	160	171	143	152	166	177	143	152	166	177								
	MBh	58.4	59.7	63.8	68.2	57.0	58.3	62.3	66.6	55.7	56.9	60.8	65.0	54.3	55.5	59.3	63.4	51.6	52.7	56.3	60.2	47.8	48.8	52.2	55.8	47.8	48.8	52.2	55.8								
	S/T	0.92	0.87	0.70	0.53	0.96	0.90	0.73	0.55	0.98	0.92	0.75	0.56	1.00	1.00	0.95	0.77	1.00	1.00	0.99	0.80	1.00	1.00	0.99	0.80	1.00	1.00	0.99	0.81	0.60							
	Δ T	25	24	21	17	25	24	21	17	25	24	21	17	25	24	21	17	24	24	21	17	22	23	20	16	22	23	20	16								
KW	3.90	3.98	4.10	4.22	4.18	4.27	4.40	4.54	4.43	4.53	4.67	4.81	4.65	4.75	4.90	5.06	4.84	4.95	5.10	5.27	5.00	5.11	5.27	5.45	5.00	5.11	5.27	5.45									
Amps	18.1	18.5	18.9	19.5	19.3	19.7	20.2	20.8	20.6	21.0	21.6	22.3	21.8	22.2	22.8	23.5	22.9	23.4	24.0	24.8	24.1	24.5	25.2	26.1	24.1	24.5	25.2	26.1									
Hi PR	196	211	223	233	220	237	250	261	251	270	285	297	286	307	324	338	321	346	365	381	355	382	403	421	355	382	403	421									
LO PR	113	120	131	140	119	127	139	148	124	132	144	154	120	129	141	151	128	136	148	158	134	143	156	166	139	147	161	171									
MBh	55.5	56.7	60.6	64.7	54.2	55.4	59.2	63.2	52.9	54.1	57.7	61.7	51.6	52.7	56.3	60.2	49.0	50.1	53.5	57.2	45.4	46.4	49.6	53.0	45.4	46.4	49.6	53.0									
S/T	0.88	0.83	0.68	0.50	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	0.97	0.91	0.74	0.55	1.01	0.94	0.77	0.57	1.02	0.95	0.78	0.58	1.02	0.95	0.78	0.58									
Δ T	26	25	21	17	26	25	22	17	26	25	22	17	26	25	22	17	26	25	22	17	24	23	20	16	24	23	20	16									
KW	3.84	3.92	4.04	4.16	4.12	4.20	4.33	4.47	4.36	4.46	4.59	4.74	4.58	4.68	4.82	4.98	4.77	4.87	5.02	5.18	4.92	5.03	5.19	5.36	4.92	5.03	5.19	5.36									
Amps	17.9	18.2	18.7	19.2	19.0	19.4	19.9	20.5	20.3	20.7	21.3	21.9	21.4	21.9	22.5	23.2	22.6	23.0	23.7	24.4	23.7	24.2	24.8	25.6	23.7	24.2	24.8	25.6									
Hi PR	193	207	219	228	216	232	245	256	246	264	279	291	280	301	318	332	315	339	358	373	348	374	395	412	348	374	395	412									
LO PR	111	118	129	137	117	125	136	145	122	129	141	151	128	136	148	158	134	143	156	166	139	147	161	171	139	147	161	171									

IDB: Entering Indoor Dry Bulb Temperature
 High and low pressures are measured at the liquid and suction service valves.
 Design Subcooling, 5-7°F @ the liquid access fitting connection AHRI 95 test conditions. Design Superheat: 15-18°F @ the compressor suction access fitting connection.
 Shaded area reflects AHRI (TVA) conditions
 kW = Total system power
 Amps = outdoor unit amps (comp.+fan)

APG1624060M41** - RISE RANGE: 35° - 65°

TAP	LOW COOL	HIGH COOL	LOW HEAT		HIGH HEAT	
			CFM	RISE	CFM	RISE
A-	505	675	540	63	720	63
A	565	750	600	56	800	56
A+	620	825	660	51	880	51
B-	540	720	610	55	810	56
B	600	800	675	50	900	50
B+	660	880	745	45	990	45
C-	560	745	660	51	880	51
C	620	825	735	46	980	46
C+	685	910	810	42	1075	42
D-	575	765	720	47	960	47
D	640	850	800	42	1065	42
D+	700	935	880	38	1170	38

APG1630080M41** - RISE RANGE: 35° - 65°

TAP	LOW COOL	HIGH COOL	LOW HEAT		HIGH HEAT	
			CFM	RISE	CFM	RISE
A-	545	810	720	63	960	63
A	605	900	800	56	1065	56
A+	665	990	880	51	1170	51
B-	605	900	810	56	1075	56
B	670	1000	900	50	1195	50
B+	735	1100	990	45	1315	46
C-	650	970	900	50	1195	50
C	720	1075	1000	45	1330	45
C+	795	1185	1100	41	1465	41
D-	665	990	990	45	1315	46
D	735	1100	1100	41	1465	41
D+	810	1210	1210	37	1610	37

APG1636080M41** - RISE RANGE: 35° - 65°

TAP	LOW COOL	HIGH COOL	LOW HEAT		HIGH HEAT	
			CFM	RISE	CFM	RISE
A-	680	1015	720	63	960	63
A	755	1125	800	56	1065	56
A+	830	1240	880	51	1170	51
B-	725	1080	810	56	1075	56
B	805	1200	900	50	1195	50
B+	885	1320	990	45	1315	46
C-	755	1125	900	50	1195	50
C	840	1250	1000	45	1330	45
C+	920	1375	1100	41	1465	41
D-	800	1195	990	45	1315	46
D	890	1325	1100	41	1465	41
D+	980	1460	1210	37	1610	37

APG1642100M41** - RISE RANGE: 35° - 65°

TAP	LOW COOL	HIGH COOL	LOW HEAT		HIGH HEAT	
			CFM	RISE	CFM	RISE
A-	970	1170	915	61	1215	62
A	1080	1300	1015	55	1350	56
A+	1185	1430	1115	50	1485	51
B-	1045	1260	1015	55	1350	56
B	1160	1400	1125	50	1495	50
B+	1280	1540	1240	45	1650	45
C-	1085	1305	1125	50	1495	50
C	1205	1450	1250	45	1665	45
C+	1325	1595	1375	41	1830	41
D-	1120	1350	1240	45	1650	45
D	1245	1500	1375	41	1830	41
D+	1370	1650	1515	37	2015	37

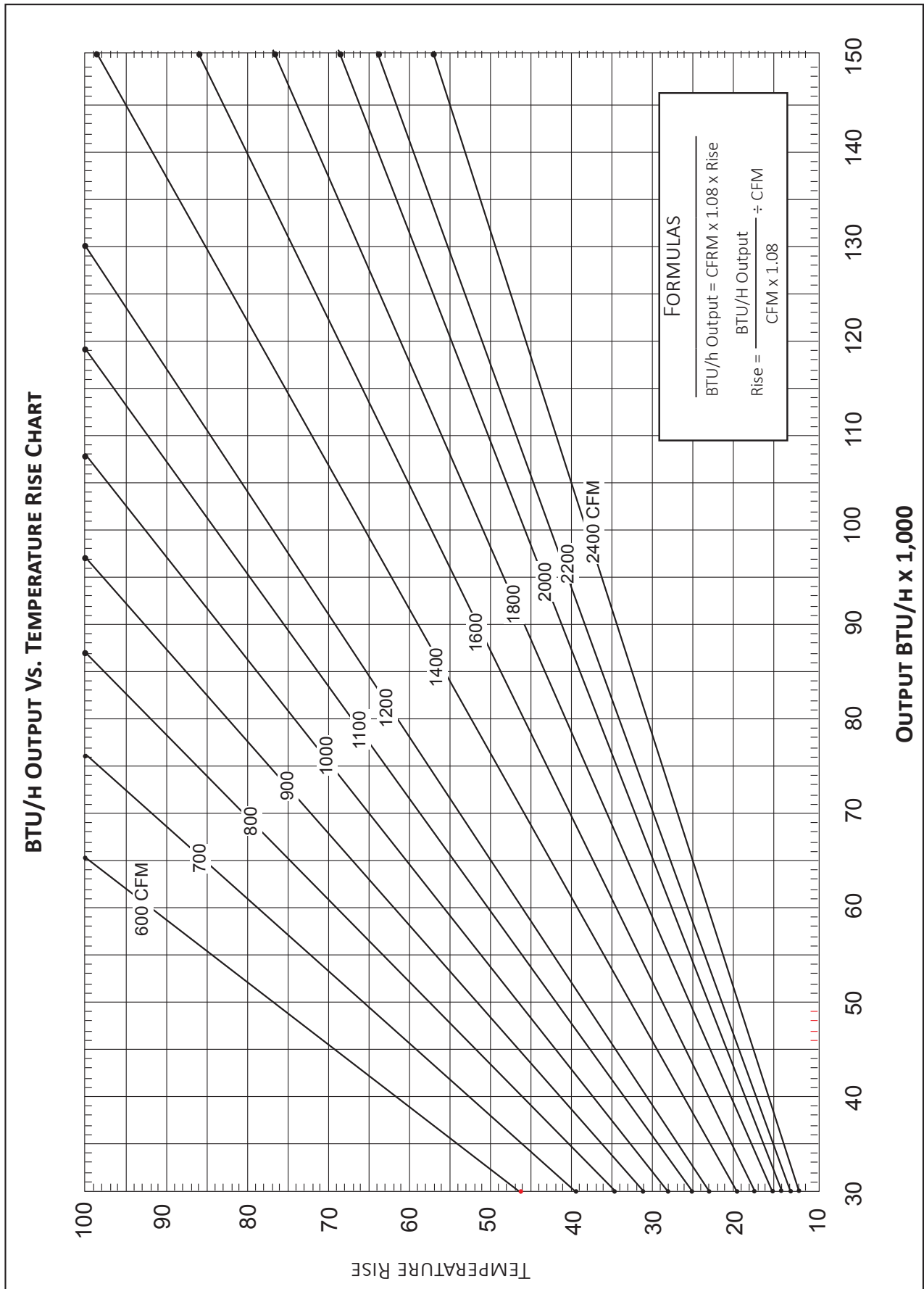
APG1648100M41** - RISE RANGE: 35° - 65°

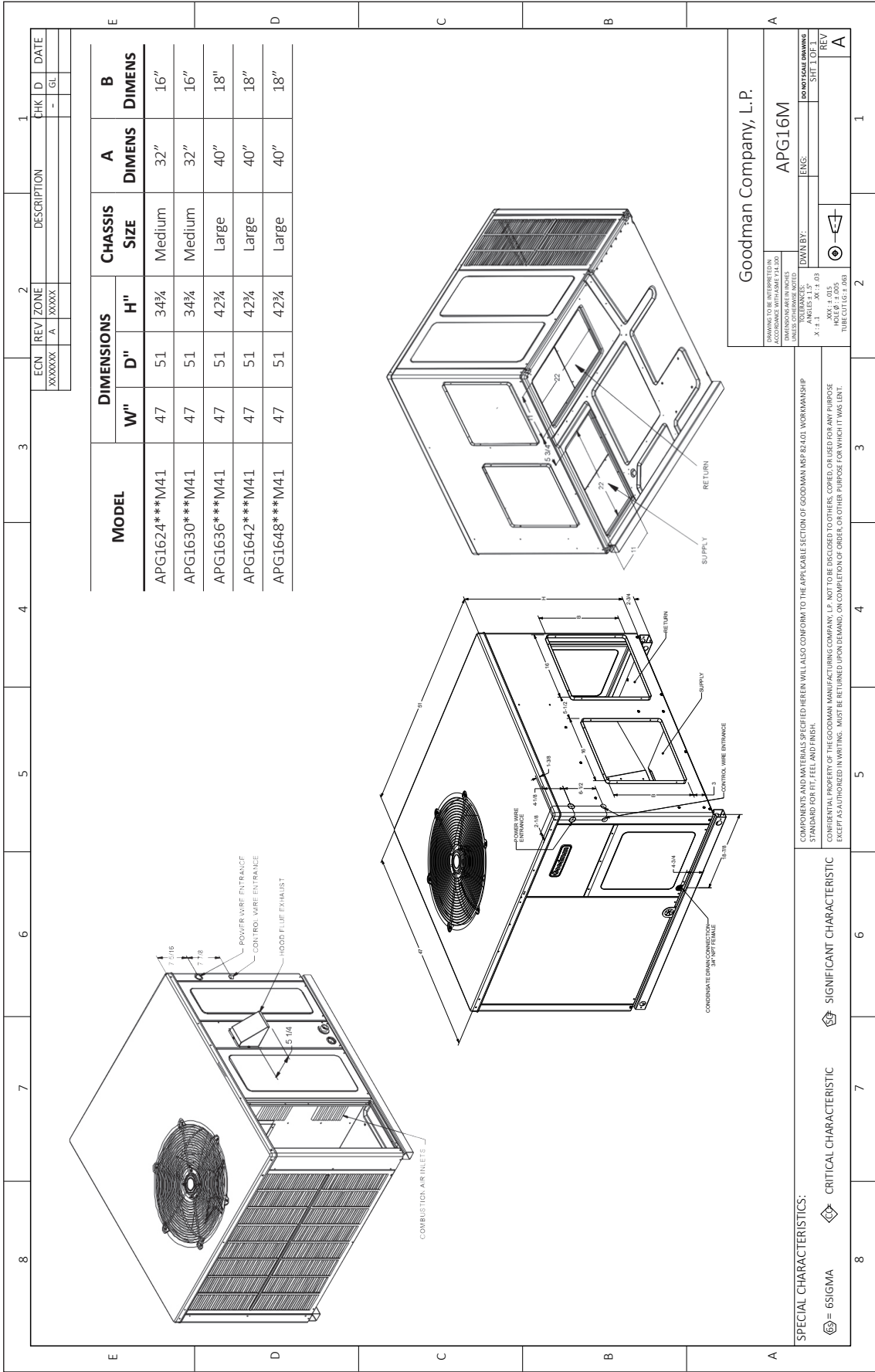
TAP	LOW COOL	HIGH COOL	LOW HEAT		HIGH HEAT	
			CFM	RISE	CFM	RISE
A-	1150	1305	900	63	1195	63
A	1275	1450	1000	56	1330	56
A+	1405	1595	1100	51	1465	51
B-	1190	1350	1015	55	1350	56
B	1320	1500	1125	50	1495	50
B+	1450	1650	1240	45	1650	45
C-	1230	1395	1125	50	1495	50
C	1365	1550	1250	45	1665	45
C+	1500	1705	1375	41	1830	41
D-	1265	1440	1240	45	1650	45
D	1410	1600	1375	41	1830	41
D+	1550	1760	1515	37	2015	37

APG1660140M41** - RISE RANGE: 35° - 65°

TAP	LOW COOL	HIGH COOL	LOW HEAT		HIGH HEAT	
			CFM	RISE	CFM	RISE
A-	1250	1800	1250	59	1800	58
A	1390	2000	1390	53	2000	53
A+	1530	2200	1530	48	2200	48
B-	1155	1665	1155	64	1665	63
B	1285	1850	1285	57	1850	57
B+	1415	2035	1415	52	2035	52
C-	1000	1440	1000	X	1440	X
C	1110	1600	1110	X	1600	X
C+	1225	1760	1220	60	1760	60
D-	845	1215	845	X	1215	X
D	940	1350	940	X	1350	X
D+	1030	1485	1035	X	1485	X

X = Outside of Temperature Rise Range- Not Recommended.





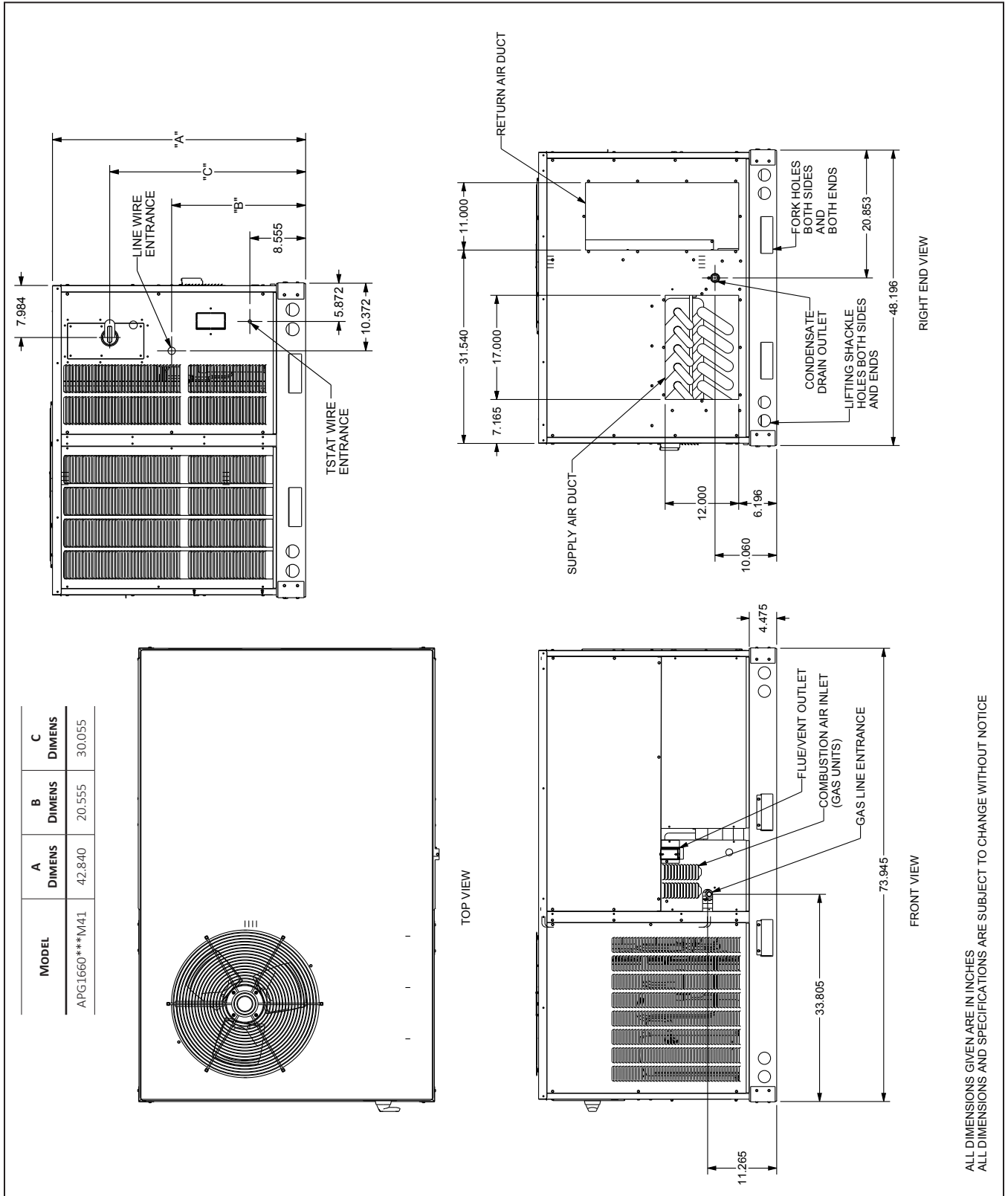
Goodman Company, L.P.

APG16M

DRAWINGS TO BE INTERPRETED IN ACCORDANCE WITH ASME Y14.100 DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED	
TOLERANCES:	FINISH:
X - .1	XX - .015
XX - .015	XXX - .005
HOLES & TAP HOLES	TUBES CUT TO G. DIM.
DOWN BY:	DO NOT SCALE DRAWING
ENG:	SHT 1 OF 1
REV	A

COMPONENTS AND MATERIALS SPECIFIED HEREIN WILL ALSO CONFORM TO THE APPLICABLE SECTION OF GOODMAN MSP #2400, WORKMANSHIP STANDARD FOR FIT, FEEL AND FINISH.
 CONFIDENTIAL PROPERTY OF THE GOODMAN MANUFACTURING COMPANY. I.P. NOT TO BE DISCLOSED TO OTHERS, COPIED OR USED FOR ANY PURPOSE EXCEPT AS AUTHORIZED IN WRITING. MUST BE RETURNED UPON DEMAND, ON COMPLETION OF ORDER, OR OTHER PURPOSE FOR WHICH IT WAS LENT.

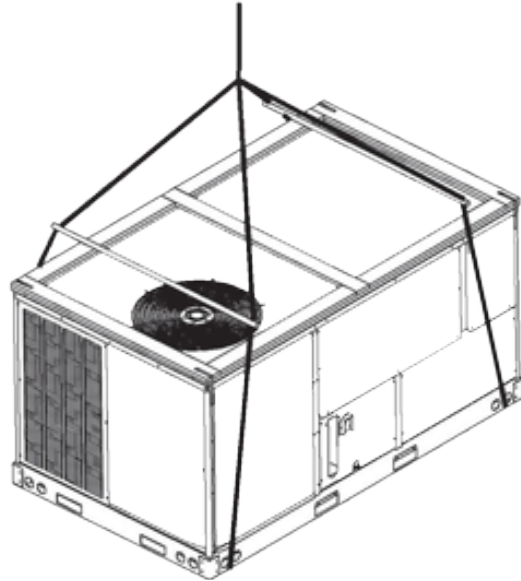
SPECIAL CHARACTERISTICS:
 Ⓢ = 6SIGMA
 Ⓢ = CRITICAL CHARACTERISTIC
 Ⓢ = SIGNIFICANT CHARACTERISTIC



ALL DIMENSIONS GIVEN ARE IN INCHES
ALL DIMENSIONS AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

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.

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.

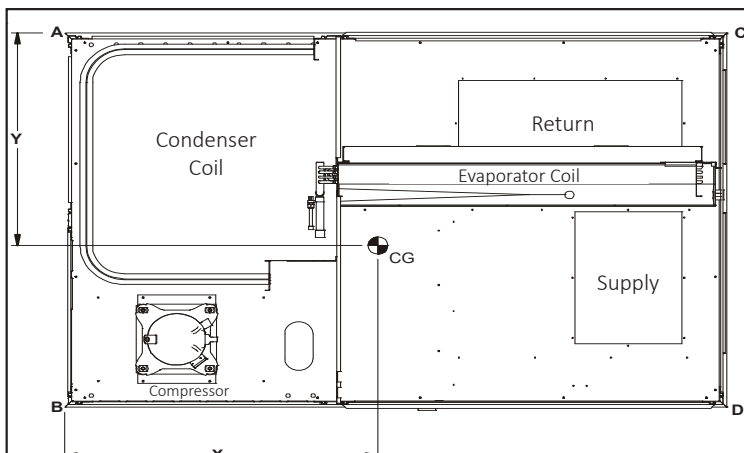
Full perimeter roof curbs are available from the factory and are shipped unassembled. The installing contractor is responsible for field assembly, squaring, leveling, and mounting on the roof structure. All required hardware necessary for the assembly of the sheet metal curb is included in the curb accessory 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.

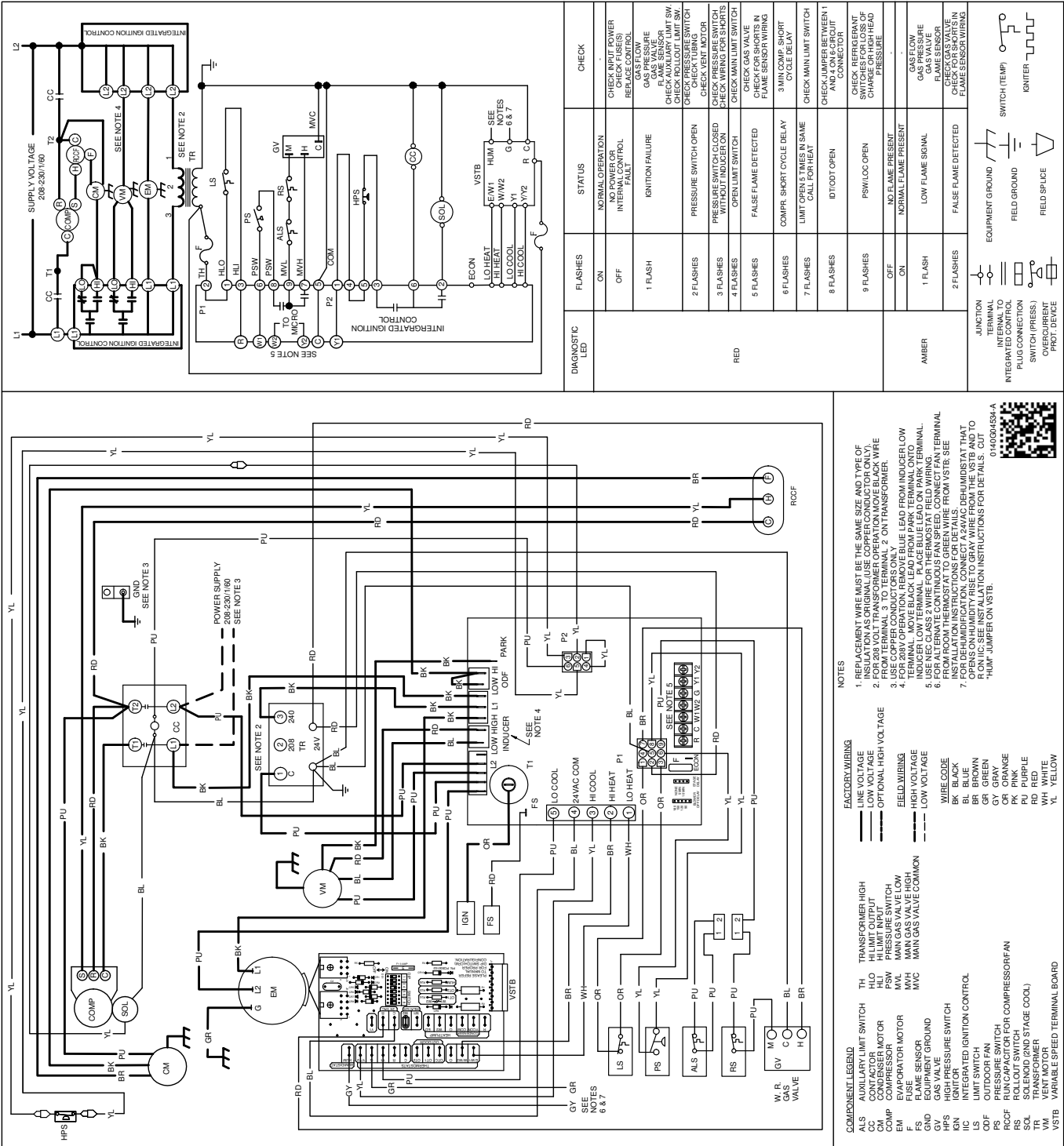
See the manual shipped with the roof curb for assembly and installation instructions.

CORNER & CENTER-OF-GRAVITY LOCATIONS



MODEL	X (IN)	Y (IN)	SHIPPING WEIGHT (LBS)	OPERATING WEIGHT (LBS)
APG1660***M41	46.4	28.1	655	629

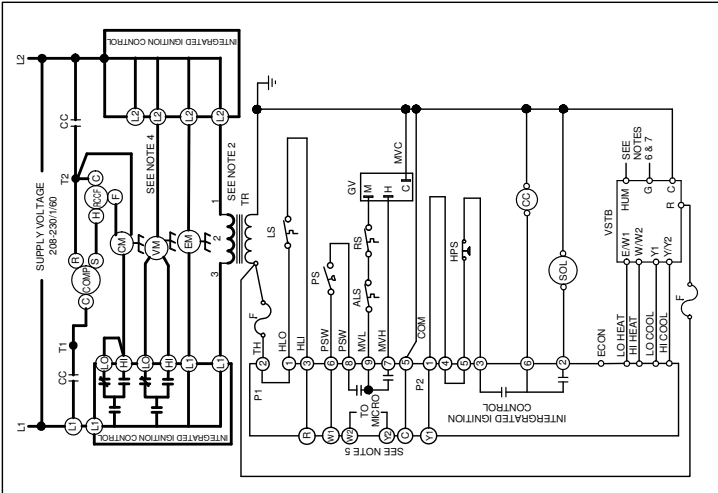
MODEL	CORNER WEIGHTS (LBS.)			
	A	B	C	D
APG1660***M41	186	204	65	174



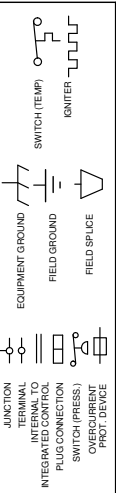
WARNING

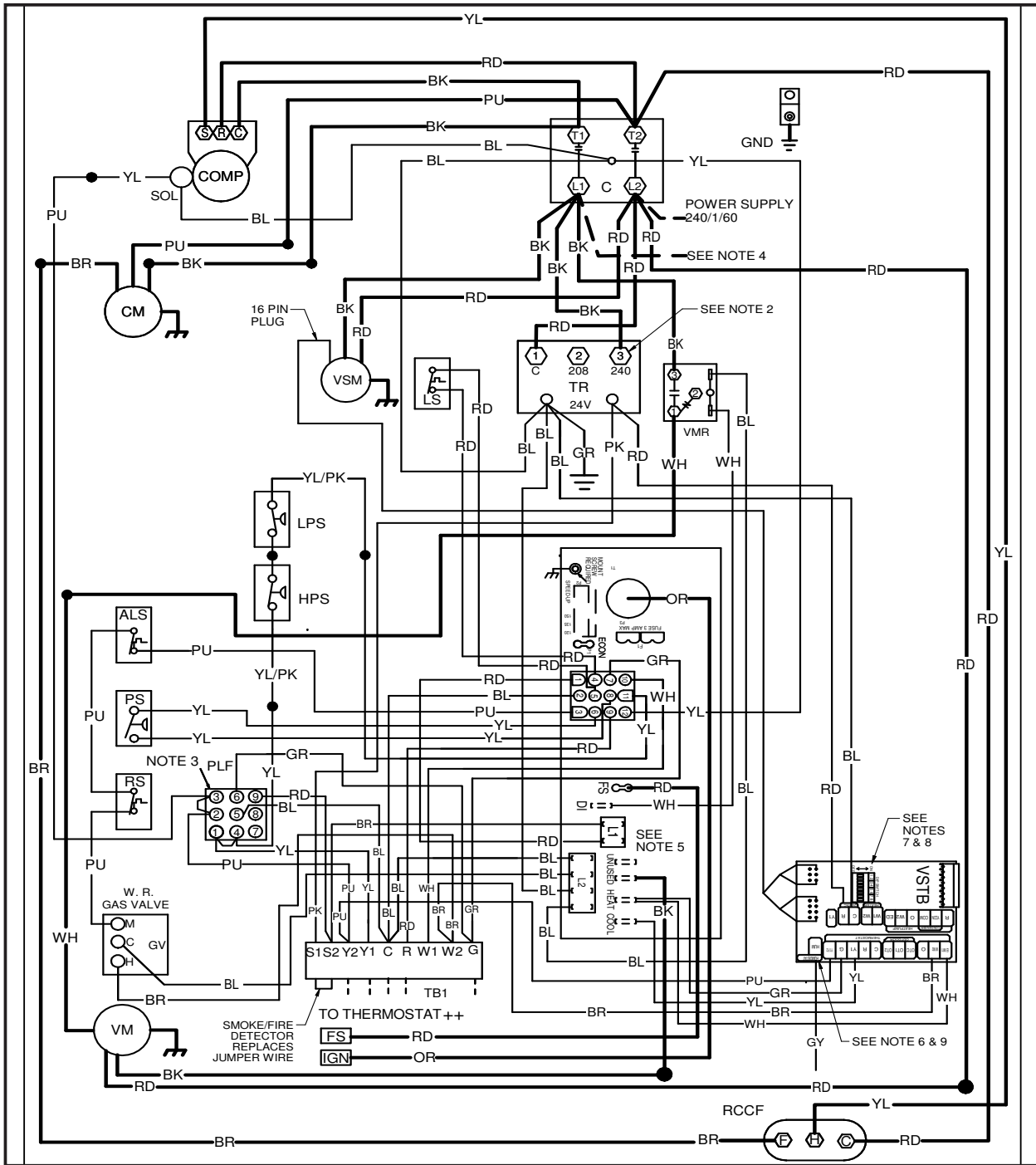
High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

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





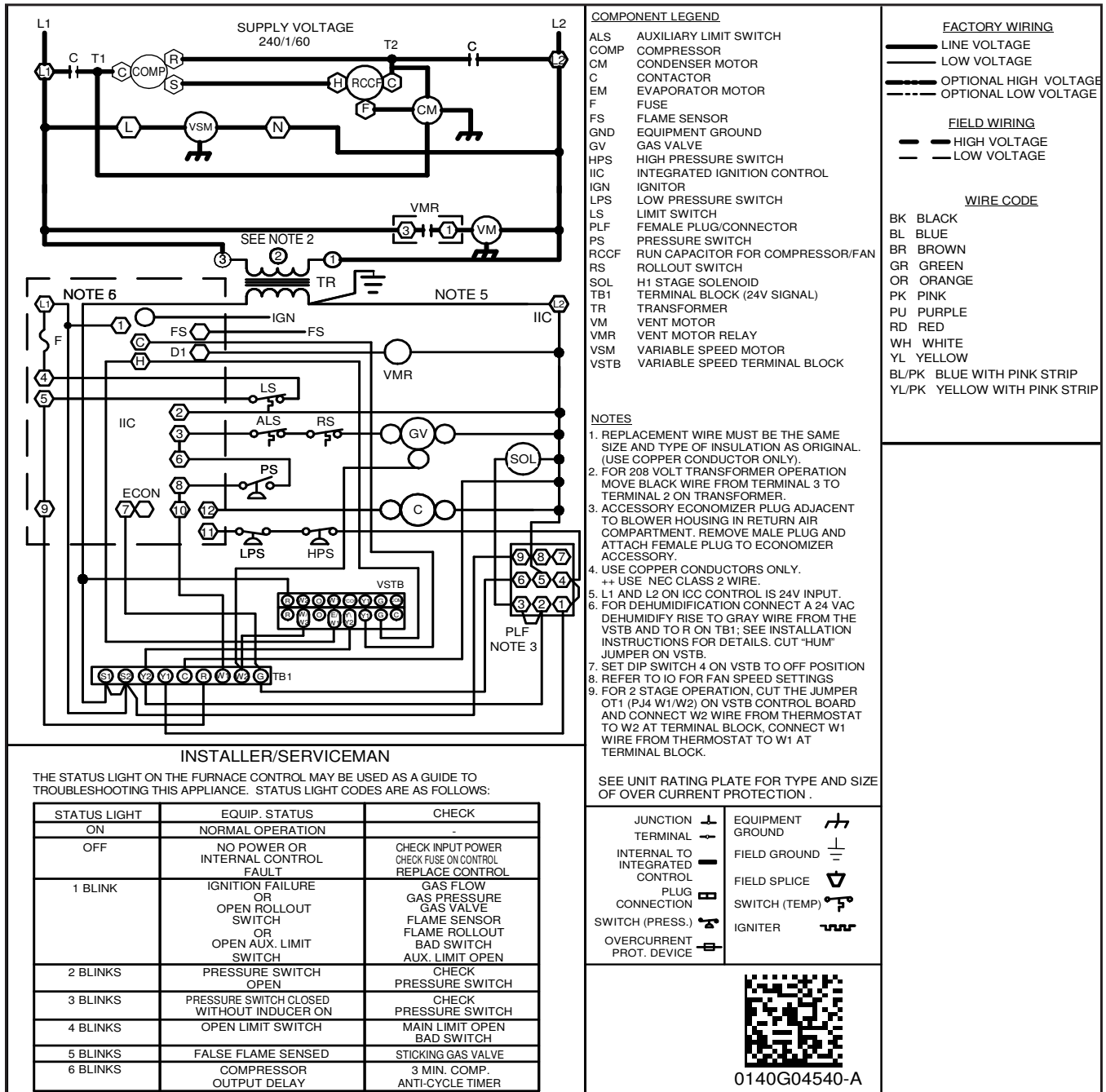
DIAGNOSTIC LED	FLASHES	STATUS	CHECK
	ON	NORMAL OPERATION	CHECK POWER SUPPLY
	OFF	NO POWER OR INTERMITTENT CONTROL	CHECK FUSES
	1 FLASH	IGNITION FAILURE	CHECK GAS FLOW
	2 FLASHES	PRESSURE SWITCH OPEN	CHECK PRESSURE SWITCH
	3 FLASHES	PRESSURE SWITCH CLOSED WITHOUT INDUCER ON	CHECK WIRING FOR SHORTS
RED	4 FLASHES	OPEN LIMIT SWITCH	CHECK GAS VALVE
	5 FLASHES	FALSE FLAME DETECTED	CHECK GAS VALVE
	6 FLASHES	COMPRESSOR SHORT CYCLE DELAY	CHECK ROLL-OUT LIMIT SW
	7 FLASHES	LIMIT OPEN 5 TIMES IN SAME CALL FOR HEAT	CHECK PRESSURE SWITCH
	8 FLASHES	BT/COOL OPEN	CHECK VENT MOTOR
	9 FLASHES	PSW/LOC OPEN	CHECK PRESSURE SWITCH
	ON/OFF	NO FLAME PRESENT	CHECK WIRING FOR SHORTS
AMBER	1 FLASH	LOW FLAME SIGNAL	CHECK GAS VALVE
	2 FLASHES	FALSE FLAME DETECTED	CHECK GAS VALVE





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

 WARNING	<p>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.</p>	
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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.

FOR THE APG1624-48***M41** UNITS

ACCESSORY DESCRIPTION	ITEM NUMBER	
	MEDIUM CHASSIS	LARGE CHASSIS
Concentric Kit	CDK36	CDK4872
Downflow Economizer	PGEDJ101/102	PGEDJ103
Downflow Internal Filter Rack (with economizer)	DDNIFRPGMM	N/A (built into economizer)
Downflow Internal Filter Rack (no economizer)	DDNIFRPGA	DDNIFRPGA
Downflow Manual Damper	PGMDD101/102	PGMDD103
Downflow Motorized Damper	PGMDMD101/102	PGMDMD103
Downflow Square to Round	SQRPG101/102	SQRPG103
Economizer Wiring Harness (2-4 Tons)	0259L00412	0259L00412
External Horizontal Filter Rack	DPHFRA	DPHFRA
Flue Extension Kit	FLHDKT-1	FLHDKT-1
High-Altitude Kit	HA-03	HA-03
Horizontal Duct Cover	20464501PDGK	20464502PDGK
Horizontal Economizer	DHZECNJPGCHM	DHZECNJPGCHL
Horizontal Manual Damper	PGMDH102	PGMDH103
Horizontal Motorized Damper	PGMDMH102	PGMDMH103
Horizontal Square to Round	SQRPGH101/102	SQRPGH103
Internal Horizontal Filter Rack	DHZIFRPGCHA	DHZIFRPGCHA
LP Conversion Kit	LPM-08	LPM-08
Outdoor Thermostat with Housing	OTDFPKG-01	OTDFPKG-01
Roof Curb	D14CRBPGCHMA	D14CRBPGCHMA

FOR THE APG1660***M41** UNITS

ITEM #	DESCRIPTION
14CURB3672	14" Roof Curb
D25FD3672	25% Manual Fresh Air Damper
D25MFD3672	25% Motorized Fresh Air Damper
CDK4872	Concentric Duct Kit
DDNECNJ3672B	Low-leak Downflow Economizer
DDNECNJ3672NR	Downflow Economizer w/o Barometric Relief
DDNSQRD487218	Downflow Square-to-Round Adapter (18" Round)
DHZECNJ3672	Horizontal Economizer
FSK01A	Freeze Stat Kit
GHRC-1	Hurricane Restraint Clips
HA-02	High Altitude Kit
GHRC-1	Hurricane Restraint Clips
DBRD3672	Barometric Relief Damper
LAKT01	Low-Ambient Kit
LPM-06	LP Conversion Kit
220-GX-01	Flue Extension Kit