



Air Conditioning & Heating

# GPH14M

COOLING CAPACITY: 24,000 - 58,000 BTU/H

HEATING CAPACITY: 23,000 - 57,500 BTU/H

PACKAGED HEAT PUMPS

2 TO 5 TONS

14 SEER & 8.0 HSPF

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### Standard Features

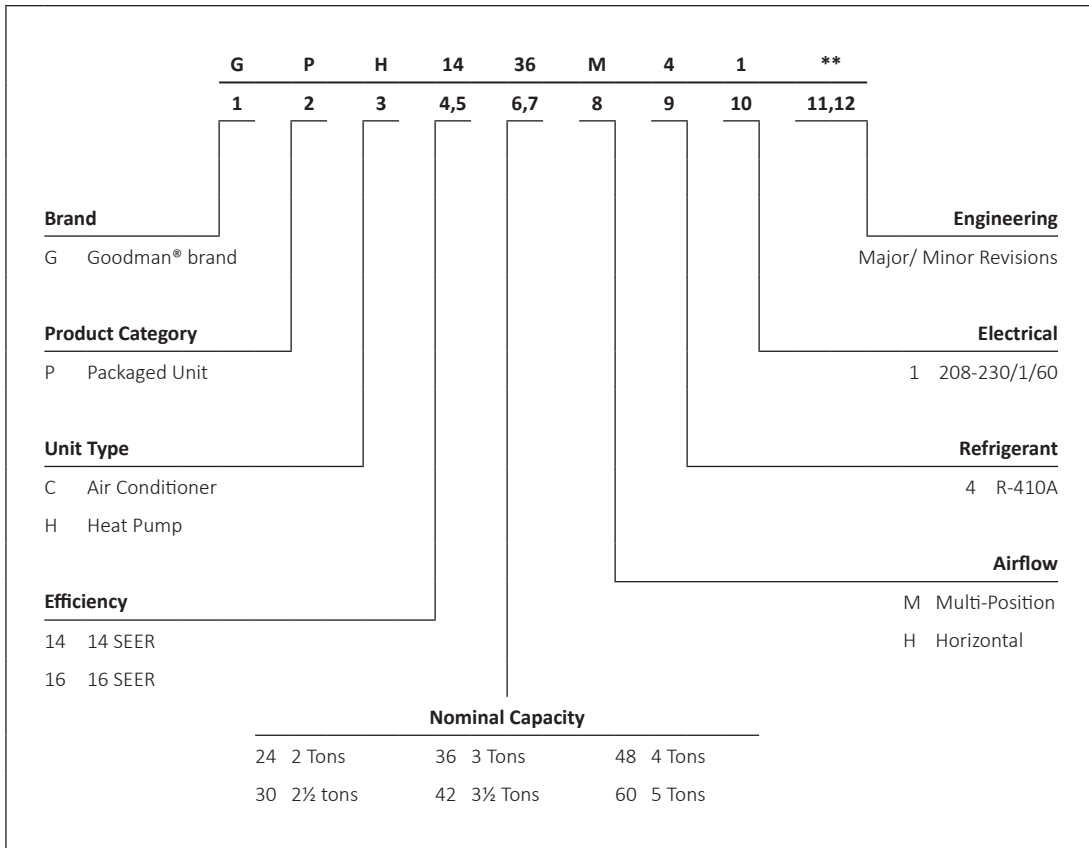
- High-efficiency compressor
- ECM indoor blower motor
- Liquid-line filter drier
- Convertible airflow: horizontal or downflow
- All-Aluminum evaporator coil
- Copper tube/aluminum fin condenser coils
- Electric heat kit available as a field-installed option
- AHRI Certified; ETL Listed

### Cabinet Features

- Heavy-gauge galvanized-steel cabinet with attractive Architectural Gray powder-paint finish
- Fully insulated air-handling compartment with convenient access panels
- Louvered condenser coil protection
- One footprint; two heights



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



	GPH14 24M41A*	GPH14 30M41A*	GPH14 36M41A*	GPH14 42M41A*	GPH14 48M41A*	GPH14 60M41A*
<b>COOLING CAPACITY</b>						
Total BTU/h	24,000	28,600	34,400	41,000	48,000	58,000
Sensible BTU/h	18,700	21,800	26,200	29,600	36,400	42,500
SEER / EER	14/11	14/11	14/11	14/11	14/11	14/11
Decibels	76	76	81	80	79	80
AHRI #s	7470164	7470160	7470161	7470165	7470166	7470162
<b>HEATING CAPACITY</b>						
BTU/h (47°F)	23,000	28,000	33,200	40,500	45,500	57,000
C.O.P (47°F)	3.6	3.6	3.6	3.6	3.6	3.5
BTU/h (17°F)	12,600	15,000	19,000	22,600	26,600	31,400
C.O.P (17°F)	2.2	2.2	2.2	2.2	2.2	2.2
HSPF	8.0	8.0	8.0	8.0	8.0	8.0
<b>EVAPORATOR MOTOR</b>						
Type	ECM	ECM	ECM	ECM	ECM	ECM
Wheel (D x W)	10 x 9	10 x 9	10 x 9	10 x 9	10 x 9	10 x 9
Nominal Cooling CFM	850	1,050	1,200	1,300	1,600	1,850
FLA / LRA	4.3 / --	4.3 / --	4.3 / --	5.8 / --	5.8 / --	7.6 / --
No. of Speeds	5	5	5	5	5	5
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> )	4.55	4.55	4.55	4.55	6.20	6.20
Rows Deep/ Fin per Inch	4 / 14	4 / 14	4 / 14	4 / 14	4 / 14	4 / 14
Drain Size (NPT)	¾"	¾"	¾"	¾"	¾"	¾"
R-410A Refrigerant Charge (oz.)	128	128	115	133	153	180
<b>CONDENSER FAN / COIL</b>						
Horsepower - RPM	¾ - 830	¾ - 830	¾ - 830	¾ - 1,075	¾ - 1,075	¾ - 1,075
FLA/LRA	1.5 / 3.0	1.5 / 3.0	1.4 / 3.0	1.4 / 2.9	1.4 / 2.9	2.5 / 3.0
Fan Diameter / # Fan Blades	22 / 3	22 / 3	22 / 4	22 / 3	22 / 3	22 / 3
Face Area (ft <sup>2</sup> )	12.21	12.21	12.21	12.21	15.30	21.32
Rows Deep/ Fin per Inch	2 / 16	2 / 16	2 / 16	2 / 16	2 / 16	2 / 16
<b>COMPRESSOR</b>						
Quantity	1	1	1	1	1	1
Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Stage	Single	Single	Single	Single	Single	2 Stage
<b>ELECTRICAL DATA</b>						
Voltage/ Phase (60 Hz)	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1	208-230/1
Compressor RLA/ LRA	12.8 / 58.3	14.1 / 73	16.7 / 79	17.9 / 112	21.8 / 117	27.1 / 152.9
Total Unit Amps	18.6	19.9	22.4	25.1	29	37.2
Min. Circuit Ampacity <sup>1</sup>	21.8	23.4	26.6	29.6	34.5	44.0
Max. Overcurrent Protection <sup>2</sup>	30 amps	35 amps	40 amps	45 amps	50 amps	70 amps
<b>SHIPPING WEIGHT (LBS)</b>	380	390	400	410	485	495

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

<sup>2</sup> 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.





















Table with columns for Outdoor Ambient Temperature (65°F to 115°F), Entering Indoor Wet Bulb Temperature (75°F to 85°F), and Indoor Airflow (1800, 1600, 1400). Rows include MBh, S/T, ΔT, kW, Amps, HI/PR, LO/PR for 80, 1400, and 1800.

Table with columns for Outdoor Ambient Temperature (65°F to 115°F), Entering Indoor Wet Bulb Temperature (75°F to 85°F), and Indoor Airflow (1800, 1600, 1400). Rows include MBh, S/T, ΔT, kW, Amps, HI/PR, LO/PR for 85, 1600, and 1400.

IDB: Entering Indoor Dry Bulb Temperature
High & low pressures are measured at the liquid & suction access fittings.
Shaded area reflects AHRI (ITVA) conditions
kW = Total system power
Amps = outdoor unit amps (comp. + fans)



EXPANDED COOLING DATA — GPH1460M41A\*\* — HIGH STAGE (CONT.)

IDB	AIRFLOW	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	
80	2080	MBh	58.8	60.1	64.2	68.7	57.5	58.7	62.7	67.1	56.1	57.3	61.2	65.5	54.7	55.9	59.7	63.9	52.0	53.1	56.8	60.7	48.2	49.2	52.6	56.2
		S/T	0.91	0.85	0.69	0.5	0.94	0.88	0.72	0.5	0.97	0.91	0.74	0.6	1.00	0.94	0.76	0.6	1.00	1.00	0.79	0.6	1.00	1.00	0.80	0.6
		ΔT	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	23	23	20	16	21	22	19	14.8
		KW	4.14	4.23	4.37	4.5	4.47	4.57	4.72	4.9	4.76	4.87	5.03	5.2	5.02	5.13	5.31	5.5	5.24	5.36	5.54	5.7	5.42	5.55	5.74	5.9
	1850	Amps	6.5	6.9	7.5	8.2	7.9	8.3	8.9	9.7	9.5	9.9	10.6	11.4	10.8	11.3	12.0	12.9	12.2	12.7	13.5	14.4	13.5	14.1	14.9	15.9
		HI PR	263	283	299	311.6	295	318	335	349.7	336	361	381	397.7	382	411	434	453.0	430	463	489	509.6	475	511	540	563.0
		LO PR	109	116	127	135.2	116	123	134	142.9	120	128	139	148.5	126	134	146	156.0	132	141	153	163.5	137	145	159	169.1
		MBh	57.1	58.4	62.4	66.7	55.8	57.0	60.9	65.1	54.5	55.6	59.5	63.6	53.1	54.3	58.0	62.0	50.5	51.6	55.1	58.9	46.8	47.8	51.0	54.6
	1620	S/T	0.87	0.81	0.66	0.5	0.90	0.84	0.69	0.5	0.92	0.87	0.70	0.5	0.95	0.89	0.73	0.5	0.99	0.93	0.75	0.6	1.00	0.93	0.76	0.6
		ΔT	25	24	21	16	25	24	21	17	25	24	21	17	25	24	21	17	25	24	21	17	23	22	19	15.4
		KW	4.10	4.19	4.33	4.5	4.43	4.53	4.68	4.8	4.72	4.83	4.99	5.2	4.97	5.09	5.26	5.4	5.19	5.31	5.49	5.7	5.38	5.50	5.69	5.9
		Amps	6.4	6.8	7.3	8.0	7.7	8.2	8.8	9.5	9.3	9.8	10.4	11.2	10.6	11.1	11.8	12.7	12.0	12.5	13.3	14.2	13.3	13.9	14.7	15.6
1620	HI PR	260	280	296	308.6	292	314	332	346.2	332	358	378	393.8	378	407	430	448.5	426	458	484	504.6	470	506	534	557.5	
	LO PR	108	115	126	133.9	114	122	133	141.5	119	126	138	147.0	125	133	145	154.4	131	139	152	161.8	135	144	157	167.4	
	MBh	52.7	53.9	57.5	61.5	51.5	52.6	56.2	60.1	50.3	51.4	54.9	58.7	49.0	50.1	53.5	57.2	46.6	47.6	50.9	54.4	43.2	44.1	47.1	50.4	
	S/T	0.84	0.79	0.64	0.5	0.87	0.81	0.66	0.5	0.89	0.83	0.68	0.5	0.92	0.86	0.70	0.5	0.95	0.89	0.73	0.5	0.96	0.90	0.73	0.5	
85	2080	MBh	59.9	61.0	63.9	68.2	58.5	59.6	62.4	66.6	57.1	58.2	60.9	65.0	55.7	56.8	59.4	63.4	52.9	53.9	56.5	60.2	49.0	49.9	52.3	55.8
		S/T	0.95	0.92	0.83	0.7	0.99	0.95	0.86	0.7	1.00	0.98	0.88	0.7	1.00	1.00	0.91	0.7	1.00	1.00	0.95	0.8	1.00	1.00	0.95	0.8
		ΔT	25	25	23	20	26	25	24	21	25	25	24	21	25	25	24	21	23	24	24	20	22	22	22	19.1
		KW	4.17	4.26	4.40	4.6	4.51	4.61	4.76	4.9	4.80	4.91	5.07	5.2	5.06	5.18	5.35	5.5	5.28	5.40	5.59	5.8	5.47	5.60	5.79	6.0
	1850	Amps	6.7	7.1	7.7	8.3	8.1	8.5	9.1	9.8	9.6	10.1	10.8	11.6	11.0	11.5	12.2	13.1	12.4	12.9	13.7	14.6	13.7	14.3	15.1	16.1
		HI PR	266	286	302	314.8	298	321	339	353.2	339	365	385	401.7	386	415	439	457.5	434	467	493	514.7	480	516	545	568.7
		LO PR	110	117	128	136.6	117	124	135	144.3	121	129	141	150.0	127	135	148	157.5	133	142	155	165.1	138	147	160	170.8
		MBh	58.1	59.2	62.0	66.2	56.8	57.9	60.6	64.6	55.4	56.5	59.2	63.1	54.1	55.1	57.7	61.6	51.4	52.3	54.8	58.5	47.6	48.5	50.8	54.2
	1620	S/T	0.91	0.88	0.79	0.6	0.94	0.91	0.82	0.7	0.97	0.93	0.84	0.7	1.00	0.96	0.87	0.7	1.00	1.00	0.90	0.7	1.00	1.00	0.91	0.7
		ΔT	26	26	24	21	27	26	25	21	27	26	25	21	27	26	25	22	26	26	25	21	24	24	23	19.9
		KW	4.14	4.23	4.37	4.5	4.47	4.57	4.72	4.9	4.76	4.87	5.03	5.2	5.02	5.13	5.31	5.5	5.24	5.36	5.54	5.7	5.42	5.55	5.74	5.9
		Amps	6.5	6.9	7.5	8.2	7.9	8.3	8.9	9.7	9.5	9.9	10.6	11.4	10.8	11.3	12.0	12.9	12.2	12.7	13.5	14.4	13.5	14.1	14.9	15.9
1620	HI PR	263	283	299	311.6	295	318	335	349.7	336	361	381	397.7	382	411	434	453.0	430	463	489	509.6	475	511	540	563.0	
	LO PR	109	116	127	135.2	116	123	134	142.9	120	128	139	148.5	126	134	146	156.0	132	141	153	163.5	137	145	159	169.1	
	MBh	53.6	54.7	57.3	61.1	52.4	53.4	55.9	59.7	51.1	52.1	54.6	58.2	49.9	50.9	53.3	56.8	47.4	48.3	50.6	54.0	43.9	44.8	46.9	50.0	
	S/T	0.88	0.85	0.76	0.6	0.91	0.88	0.79	0.6	0.93	0.90	0.81	0.7	0.96	0.93	0.84	0.7	1.00	0.96	0.87	0.7	1.00	0.97	0.88	0.7	

IDB: Entering Indoor Dry Bulb Temperature  
 High & low pressures are measured at the liquid & suction access fittings.  
 Shaded area reflects AHRI (TVA) conditions  
 KW = Total system power  
 Amps = outdoor unit amps (comp. + fans)

**GPH1424M41A\***

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	28.9	27.4	25.8	24.1	23.0	22.3	20.7	19.1	15.7	14.5	13.3	12.6	12.1	10.9	9.7	8.4	7.2	5.9
T/R	31.5	29.8	28.1	26.2	25.1	24.3	22.5	20.8	17.1	15.8	14.5	13.7	13.2	11.9	10.5	9.2	7.8	6.4
kW	1.90	1.87	1.83	1.79	1.77	1.75	1.72	1.68	1.70	1.66	1.62	1.60	1.58	1.55	1.51	1.47	1.43	1.39
Amps	10.1	9.4	8.9	8.5	8.2	8.1	7.7	7.4	7.1	6.9	6.6	6.5	6.4	6.1	5.8	5.6	5.2	4.8
COP	4.45	4.29	4.12	3.93	3.80	3.72	3.53	3.32	2.70	2.55	2.41	2.30	2.24	2.06	1.87	1.68	1.47	1.24
HI PR	377	361	347	332	324	318	306	293	281	269	258	252	247	238	229	219	211	204
LO PR	139	129	121	111	105	101	92	82	74	66	58	54	52	44	38	32	28	22

**GPH1430M41A\***

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	35.2	33.3	31.4	29.3	28.0	27.1	25.2	23.2	18.7	17.3	15.9	15.0	14.4	13.0	11.5	10.0	8.6	7.0
T/R	31.0	29.4	27.7	25.9	24.7	23.9	22.2	20.5	16.5	15.2	14.0	13.2	12.7	11.4	10.1	8.8	7.5	6.2
kW	2.36	2.31	2.26	2.21	2.19	2.17	2.12	2.07	2.05	2.00	1.95	1.93	1.91	1.86	1.81	1.77	1.72	1.67
Amps	5.6	5.4	5.1	4.9	4.8	4.8	4.6	4.5	4.3	4.2	4.1	4.1	4.0	3.9	3.8	3.7	3.5	3.4
COP	4.37	4.22	4.06	3.87	3.75	3.66	3.48	3.28	2.67	2.52	2.38	2.28	2.22	2.04	1.86	1.66	1.46	1.23
HI PR	385	370	355	340	332	325	313	300	288	275	264	257	253	243	234	224	216	209
LO PR	138	128	120	110	104	100	92	82	74	66	58	54	52	44	38	32	28	22

**GPH1436M41A\***

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	41.7	39.5	37.2	34.8	33.2	32.2	29.9	27.6	23.7	21.9	20.1	19.0	18.3	16.4	14.6	12.7	10.8	8.9
T/R	32.2	30.5	28.7	26.8	25.6	24.8	23.1	21.3	18.3	16.9	15.5	14.7	14.1	12.7	11.2	9.8	8.4	6.8
kW	2.76	2.71	2.66	2.60	2.57	2.55	2.49	2.44	2.53	2.47	2.41	2.38	2.36	2.30	2.24	2.18	2.13	2.07
Amps	7.0	6.6	6.4	6.1	6.0	5.9	5.7	5.5	5.4	5.2	5.1	5.0	5.0	4.9	4.7	4.5	4.4	4.2
COP	4.42	4.27	4.10	3.91	3.78	3.70	3.51	3.30	2.74	2.59	2.44	2.34	2.27	2.09	1.90	1.70	1.49	1.26
HI PR	391	375	361	345	337	330	318	305	292	279	268	261	257	247	237	228	220	212
LO PR	134	125	117	107	101	97	90	80	72	64	57	53	51	43	37	31	27	21

**Notes**

Above information is for nominal CFM and 70-degree indoor dry bulb. Instantaneous capacity listed.

High pressure is measured at the liquid line access fitting.

Low pressure is measured at the compressor suction access fitting.

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

kW = Total system power



**GPH1442M41A\***

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	50.9	48.2	45.4	42.4	40.5	39.2	36.5	33.6	28.0	25.9	23.8	22.5	21.7	19.4	17.2	15.0	12.8	10.5
T/R	36.3	34.3	32.3	30.2	28.8	28.0	26.0	23.9	20.0	18.4	17.0	16.0	15.4	13.8	12.3	10.7	9.1	7.5
kW	3.49	3.42	3.35	3.28	3.24	3.21	3.15	3.08	3.00	2.93	2.86	2.82	2.79	2.72	2.65	2.58	2.51	2.45
Amps	18.9	17.7	16.7	15.8	15.3	15.0	14.3	13.7	13.2	12.7	12.2	11.9	11.8	11.3	10.6	10.1	9.5	8.8
COP	4.26	4.12	3.96	3.78	3.65	3.57	3.39	3.20	2.74	2.59	2.44	2.34	2.27	2.09	1.90	1.70	1.49	1.26
HI PR	406	389	374	358	349	343	329	316	303	289	278	271	266	256	246	236	228	220
LO PR	134	124	117	107	101	97	89	80	72	64	56	52	51	43	37	31	27	21

**GPH1448M41A\***

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	57.3	54.3	51.1	47.7	45.6	44.2	41.0	37.8	33.0	30.5	28.1	26.5	25.5	22.9	20.3	17.7	15.1	12.4
T/R	33.2	31.4	29.6	27.6	26.4	25.6	23.8	21.9	19.1	17.6	16.2	15.3	14.8	13.3	11.7	10.2	8.7	7.2
kW	3.87	3.79	3.71	3.64	3.59	3.56	3.49	3.41	3.41	3.33	3.25	3.21	3.18	3.10	3.02	2.94	2.86	2.79
Amps	19.0	17.7	16.7	15.8	15.3	15.0	14.2	13.6	13.1	12.5	12.0	11.8	11.6	11.1	10.5	10.0	9.3	8.5
COP	4.34	4.19	4.02	3.84	3.71	3.63	3.44	3.25	2.84	2.68	2.53	2.42	2.35	2.16	1.97	1.76	1.54	1.30
HI PR	387	371	356	341	333	326	314	301	289	276	265	258	254	244	235	225	217	209
LO PR	129	120	112	103	97	93	86	77	69	62	54	50	49	41	35	30	26	21

**GPH1460M41A\***

	OUTDOOR AMBIENT TEMPERATURE																	
	65	60	55	50	47	45	40	35	30	25	20	17	15	10	5	0	-5	-10
MBh	71.6	67.8	63.8	59.7	57.0	55.2	51.3	47.3	39.1	36.1	33.3	31.4	30.2	27.1	24.1	21.0	17.9	14.7
T/R	35.9	33.9	32.0	29.9	28.5	27.6	25.7	23.7	19.6	18.1	16.6	15.7	15.1	13.6	12.0	10.5	9.0	7.3
kW	5.06	4.96	4.85	4.75	4.69	4.65	4.55	4.44	4.10	4.00	3.91	3.85	3.81	3.72	3.62	3.53	3.43	3.34
Amps	30.1	27.1	24.6	22.5	21.2	20.6	18.8	17.3	16.0	14.8	13.6	13.0	12.7	11.4	9.9	8.7	7.2	5.3
COP	4.15	4.01	3.85	3.68	3.56	3.48	3.30	3.12	2.79	2.64	2.49	2.39	2.32	2.14	1.94	1.74	1.53	1.29
HI PR	426	409	393	376	367	360	346	332	318	304	292	285	280	269	259	248	239	231
LO PR	126	117	110	101	95	92	84	75	68	61	53	49	48	40	35	29	26	20

**Notes**

Above information is for nominal CFM and 70-degree indoor dry bulb. Instantaneous capacity listed.

High pressure is measured at the liquid line access fitting.

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

Low pressure is measured at the compressor suction access fitting.

kW = Total system power

**GPH1424M41\***

MODEL	MOTOR SPEED	VOLTS	E.S.P (IN. OF H <sub>2</sub> O)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HORIZONTAL POSITION	T1	230	CFM	782	709	652	561	---	---	---	---	---
			Watts	71	78	86	100	---	---	---	---	---
	T2/T3	230	CFM	941	872	777	746	614	---	---	---	---
			Watts	105	112	113	128	138	---	---	---	---
	T4/T5	230	CFM	1347	1315	1256	1194	1152	1096	1051	972	891
			Watts	239	256	265	271	282	286	293	297	305
DOWNSHOT POSITION	T1	230	CFM	790	710	634	566	506	---	---	---	---
			Watts	82	86	96	103	108	---	---	---	---
	T2/T3	230	CFM	919	855	782	695	631	578	523	---	---
			Watts	108	117	121	132	143	144	149	---	---
	T4/T5	230	CFM	1312	1275	1216	1153	1096	1028	943	869	816
			Watts	260	269	274	285	295	300	304	310	316

**GPH1430M41\***

MODEL	MOTOR SPEED	VOLTS	E.S.P (IN. OF H <sub>2</sub> O)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	
HORIZONTAL POSITION	T1	230	CFM	851	803	712	635	575	506	460	---	---
			Watts	79	88	91	100	114	116	120	---	---
	T2/T3	230	CFM	1146	1098	1044	991	934	817	764	698	653
			Watts	157	170	176	186	194	201	210	215	215
	T4/T5	230	CFM	1440	1418	1364	1307	1265	1219	1168	1094	1049
			Watts	290	306	312	321	326	332	348	353	360
DOWNSHOT POSITION	T1	230	CFM	848	761	646	578	511	---	---	---	---
			Watts	84	94	98	111	113	---	---	---	---
	T2/T3	230	CFM	1103	1038	978	922	806	731	676	622	564
			Watts	162	168	179	188	199	205	208	214	219
	T4/T5	230	CFM	1401	1357	1305	1244	1179	1118	1046	934	884
			Watts	311	326	318	334	341	349	353	352	357

**GPH1436M41\***

MODEL	MOTOR SPEED	VOLTS	E.S.P (IN. OF H <sub>2</sub> O)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	
HORIZONTAL POSITION	T1	230	CFM	846	762	716	585	519	---	---	---	---
			Watts	74	83	94	98	108	---	---	---	---
	T2/T3	230	CFM	1278	1214	1182	1129	1072	1013	950	853	788
			Watts	221	218	232	245	253	264	265	275	272
	T4/T5	230	CFM	1604	1560	1507	1468	1415	1364	1321	1276	1218
			Watts	396	402	408	424	426	423	444	454	454
DOWNSHOT POSITION	T1	230	CFM	809	730	623	542	485	441	---	---	---
			Watts	73	85	92	98	107	112	---	---	---
	T2/T3	230	CFM	1284	1223	1175	1097	1031	974	871	804	761
			Watts	220	227	241	247	255	262	272	277	285
	T4/T5	230	CFM	1578	1539	1498	1452	1396	1332	1279	1224	1161
			Watts	401	409	421	425	438	439	452	453	455

**GPH1442M41\***

MODEL	MOTOR SPEED	VOLTS	E.S.P (IN. OF H <sub>2</sub> O)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HORIZONTAL POSITION	T1	230	CFM	1030	955	908	826	761	678	633	563	504
			Watts	130	126	139	143	154	168	171	181	185
	T2/T3	230	CFM	1419	1387	1327	1274	1219	1171	1111	1041	986
			Watts	273	281	287	298	309	315	318	326	336
	T4/T5	230	CFM	1750	1710	1673	1611	1556	1499	1443	1399	1353
			Watts	470	475	488	493	502	502	501	514	520
DOWNSHOT POSITION	T1	230	CFM	1001	936	852	810	700	643	579	526	491
			Watts	125	133	136	154	160	166	172	177	185
	T2/T3	230	CFM	1411	1361	1299	1240	1173	1112	1048	955	887
			Watts	281	294	301	309	312	320	327	335	339
	T4/T5	230	CFM	1734	1678	1613	1558	1509	1449	1383	1341	1279
			Watts	475	485	496	504	509	505	519	514	520

**GPH1448M41\***

MODEL	MOTOR SPEED	VOLTS	E.S.P (IN. OF H <sub>2</sub> O)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HORIZONTAL POSITION	T1	230	CFM	1167	1101	1045	992	939	870	802	732	681
			Watts	139	144	156	165	177	193	203	217	223
	T2/T3	230	CFM	1723	1637	1598	1554	1509	1467	1420	1361	1295
			Watts	372	370	381	390	404	411	420	427	441
	T4/T5	230	CFM	2012	1965	1912	1871	1809	1770	1741	1691	1635
			Watts	578	593	599	606	610	627	626	634	638
DOWNSHOT POSITION	T1	230	CFM	1155	1074	1023	969	896	805	755	667	626
			Watts	153	156	169	180	195	205	216	226	230
	T2/T3	230	CFM	1670	1596	1558	1484	1467	1383	1339	1259	1168
			Watts	383	392	399	408	419	434	436	447	449
	T4/T5	230	CFM	1949	1881	1853	1792	1753	1699	1621	1561	1522
			Watts	603	607	608	616	622	626	648	650	645

**GPH1460M41\***

MODEL	MOTOR SPEED	VOLTS	E.S.P (IN. OF H <sub>2</sub> O)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
HORIZONTAL POSITION	T1	230	CFM	1427	1370	1317	1273	1204	1165	1111	1058	1003
			Watts	222	229	237	256	256	276	291	299	320
	T2/T3	230	CFM	1935	1885	1848	1809	1755	1705	1659	1616	1567
			Watts	498	512	515	520	541	549	559	567	569
	T4/T5	230	CFM	2232	2188	2144	2087	2035	2017	1963	1926	1869
			Watts	805	795	790	827	830	842	864	864	848
DOWNSHOT POSITION	T1	230	CFM	1347	1293	1236	1184	1117	1054	996	934	871
			Watts	242	251	268	276	290	305	321	330	348
	T2/T3	230	CFM	1827	1780	1739	1683	1633	1588	1518	1462	1404
			Watts	529	538	548	557	557	576	578	604	601
	T4/T5	230	CFM	2111	2057	2030	1979	1947	1957	1922	1868	1818
			Watts	835	843	846	852	870	959	956	960	966

**HEAT KIT ELECTRICAL DATA (BLOWER ONLY, HEAT MODE)**

MODEL AND HEAT KIT USAGE	CIRCUIT #1		CIRCUIT #2		SINGLE-POINT KIT		ACTUAL kW / BTU@ 240V
	MCA <sup>1</sup>	MOD <sup>2</sup>	MCA <sup>1</sup>	MOD <sup>2</sup>	MCA <sup>1</sup>	MOP <sup>2</sup>	
<b>GPH1424M41**</b>	4.3	---	---	---	--	--	---
HKP-05C*	21 / 25	25 / 25	---	---	47	50	4.75 / 16,200
HKR-08C*	32 / 36	35 / 40	---	---	58	60	7.0 / 23,800
HKP-10C*	43 / 49	45 / 50	---	---	71	80	9.5 / 32,400
<b>GPH1430M41**</b>	4.3	---	---	---	--	--	---
HKP-05C*	21 / 25	25 / 25	---	---	48	50	4.75 / 16,200
HKR-08C*	32 / 36	35 / 40	---	---	60	60	7.0 / 23,800
HKP-10C*	43 / 49	45 / 50	---	---	73	80	9.5 / 32,400
HKP-15C*	43 / 49	45 / 50	21 / 25	25 / 25	98	110	14.25 / 48,600
<b>GPH1436M41**</b>	4.3	---	---	---	--	--	---
HKP-05C*	21 / 25	25 / 25	---	---	51	60	4.75 / 16,200
HKR-08C*	32 / 36	35 / 40	---	---	63	70	7.0 / 23,800
HKP-10C*	43 / 49	45 / 50	---	---	76	80	9.5 / 32,400
HKP-15C*	43 / 49	45 / 50	21 / 25	25 / 25	101	110	14.25 / 48,600
<b>GPH1442M41**</b>	5.8	---	---	---	--	--	---
HKP-05C*	21 / 25	25 / 25	---	---	54	60	4.75 / 16,200
HKR-08C*	32 / 36	35 / 40	---	---	66	70	7.0 / 23,800
HKP-10C*	43 / 49	45 / 50	---	---	79	80	9.5 / 32,400
HKP-15C*	43 / 49	45 / 50	21 / 25	25 / 25	104	110	14.25 / 48,600
<b>GPH1448M41**</b>	5.8	---	---	---	--	--	---
HKP-05C*	21 / 25	25 / 25	---	---	59	70	4.75 / 16,200
HKR-08C*	32 / 36	35 / 40	---	---	71	80	7.0 / 23,800
HKP-10C*	43 / 49	45 / 50	---	---	84	90	9.5 / 32,400
HKP-15C*	43 / 49	45 / 50	21 / 25	25 / 25	109	110	14.25 / 48,600
HKP-20C	43 / 49	45 / 50	43 / 49	45 / 50	133	150	19.0 / 64,800
<b>GPH1460M41**</b>	7.6	---	---	---	--	--	---
HKP-05C*	21 / 25	25 / 25	---	---	69	90	4.75 / 16,200
HKR-08C*	32 / 36	35 / 40	---	---	80	100	7.0 / 23,800
HKP-10C*	43 / 49	45 / 50	---	---	94	110	9.5 / 32,400
HKP-15C*	43 / 49	45 / 50	21 / 25	25 / 25	118	125	14.25 / 48,600
HKP-20C	43 / 49	45 / 50	43 / 49	45 / 50	142	150	19.0 / 64,800

<sup>1</sup> Minimum Circuit Ampacity @ 208 / 240 V

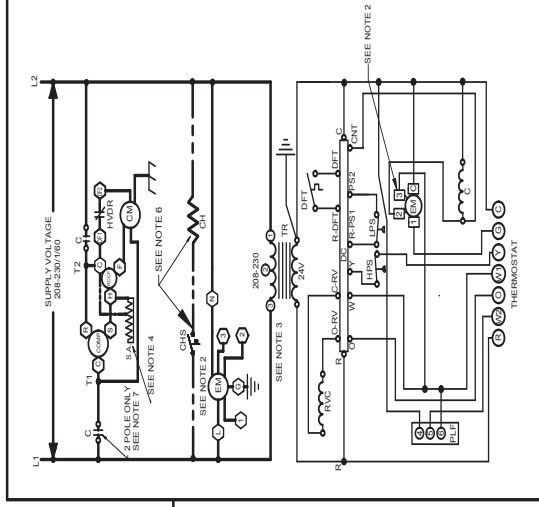
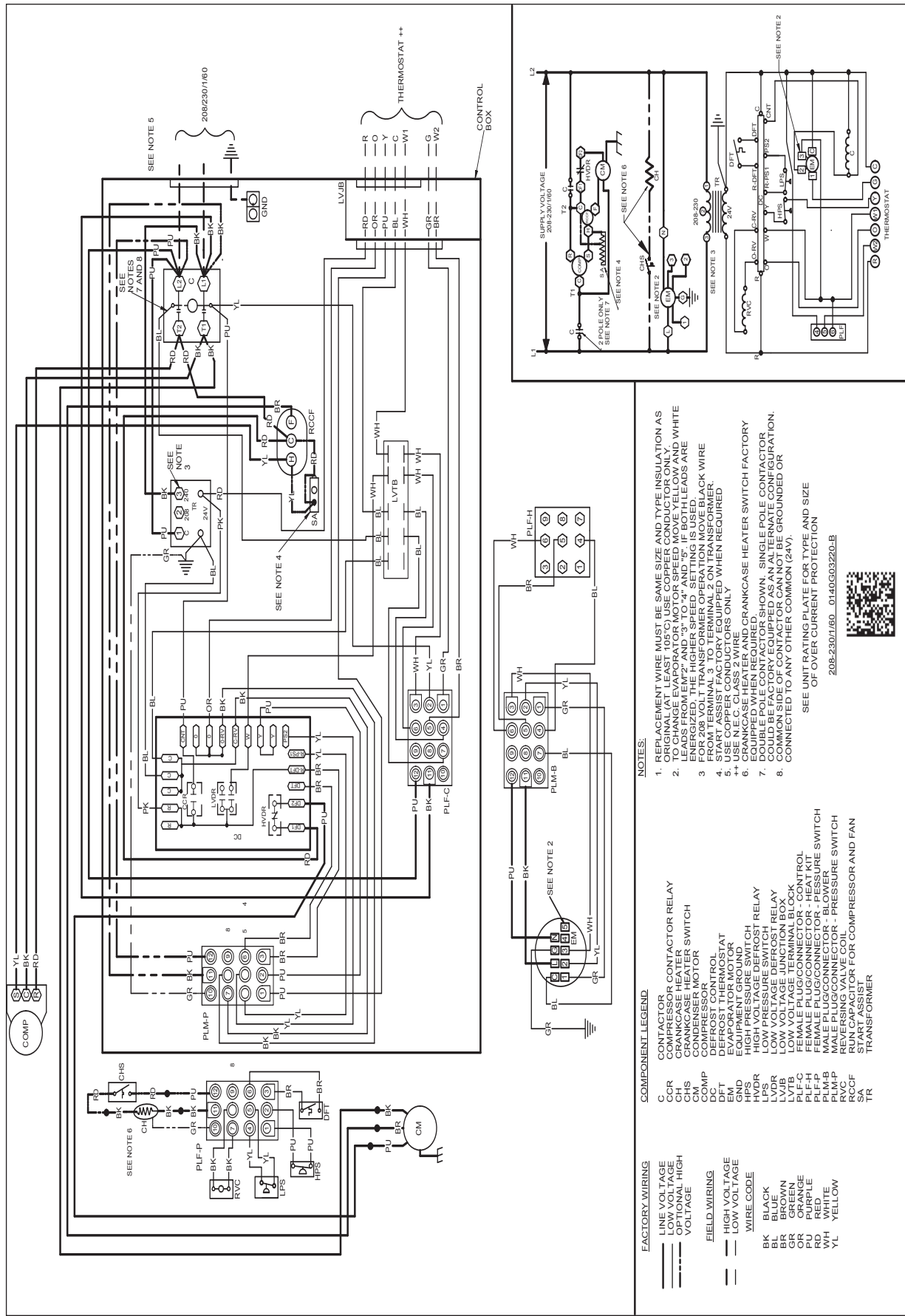
<sup>2</sup> Maximum Overcurrent Protection Device @ 208 / 240 V

\* Revision level that may or may not be designated

C Circuit breaker option

**NOTE:** HKP-15C\* and HKP-20C\* replace HKR-15C and HKR-20C respectively to meet new UL1995 requirements.

<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>ECN</th> <th>REV</th> <th>ZONE</th> <th>DESCRIPTION</th> <th>CHK</th> <th>ID</th> <th>DATE</th> </tr> <tr> <td>XXXXXX</td> <td>A</td> <td>XXXX</td> <td></td> <td>-</td> <td>GL</td> <td></td> </tr> </table>		ECN	REV	ZONE	DESCRIPTION	CHK	ID	DATE	XXXXXX	A	XXXX		-	GL								1																																		
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<p style="font-size: small;">COMPONENTS AND MATERIALS SPECIFIED HEREIN WILL ALSO CONFORM TO THE APPLICABLE SECTION OF GOODMAN MSP 824.01 WORKMANSHIP STANDARD FOR FIT, FEEL AND FINISH.</p> <p style="font-size: x-small;">CONSENTUAL PROPERTY OF THE GOODMAN MANUFACTURING COMPANY. I.P. NOT TO BE ENCLOSED 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 SENT.</p>									6																																															
Goodman Company, L.C. GPH14M DOWN BY: _____ ENGS: _____			DO NOT SCALE DRAWING SHEET 1 OF 1 REV A						7																																															
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**NOTES:**

1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE INSULATION AS ORIGINAL WIRE.
2. TO CHANGE EVAPORATOR MOTOR SPEED MOVE YELLOW AND WHITE LEADS FROM "EM2" AND "3" TO "4" AND "5". IF BOTH LEADS ARE ENERGIZED, THE HIGHER SPEED SETTING IS USED.
3. CRANKCASE HEATER RELAY IS FACTORY EQUIPPED AS AN ALTERNATE CONFIGURATION FROM TERMINAL 3 TO TERMINAL 2 ON TRANSFORMER.
4. START ASSIST FACTORY EQUIPPED WHEN REQUIRED.
5. USE OF PFC WIRE REQUIRED.
6. CRANKCASE HEATER AND CRANKCASE HEATER SWITCH FACTORY EQUIPPED WHEN REQUIRED.
7. SINGLE POLE CONTACTOR COMMON SIDE OF CONTACTOR CAN NOT BE GROUNDED OR CONNECTED TO ANY OTHER COMMON (24V).

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

208-230/1160\_01140303220-B



**COMPONENT LEGEND**

C	CONTACTOR
CCR	COMPRESSOR CONTACTOR RELAY
CH	CRANKCASE HEATER
CHS	CRANKCASE HEATER SWITCH
CM	CONDENSER MOTOR
COMP	COMPRESSOR MOTOR
CONTROL	CONTROL
DFT	DEFROST THERMOSTAT
EM	EVAPORATOR MOTOR
EM2	EVAPORATOR MOTOR SPEED CONTROL
HPS	HIGH PRESSURE SWITCH
HVDR	HIGH VOLTAGE DEFROST RELAY
LPS	LOW PRESSURE SWITCH
LPSR	LOW PRESSURE SWITCH RELAY
LVTB	LOW VOLTAGE TERMINAL BLOCK
PLF-C	FEMALE PLUG/CONNECTOR - CONTROL
PLF-F	FEMALE PLUG/CONNECTOR - PRESSURE SWITCH
PLM-B	MALE PLUG/CONNECTOR - BLOWER
PLM-P	MALE PLUG/CONNECTOR - PRESSURE SWITCH
RVC	RUN CAPACITOR
RCOF	RUN CAPACITOR FOR COMPRESSOR AND FAN
SA	START ASSIST
TR	TRANSFORMER

**FACTORY WIRING**

---	LINE VOLTAGE
---	LOW VOLTAGE
---	TERMINAL HIGH VOLTAGE

**FIELD WIRING**

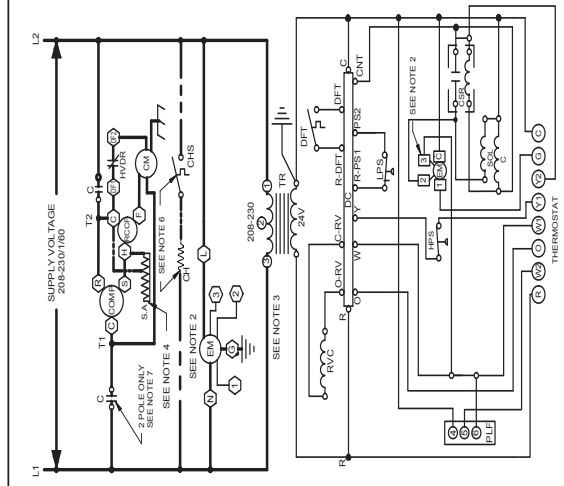
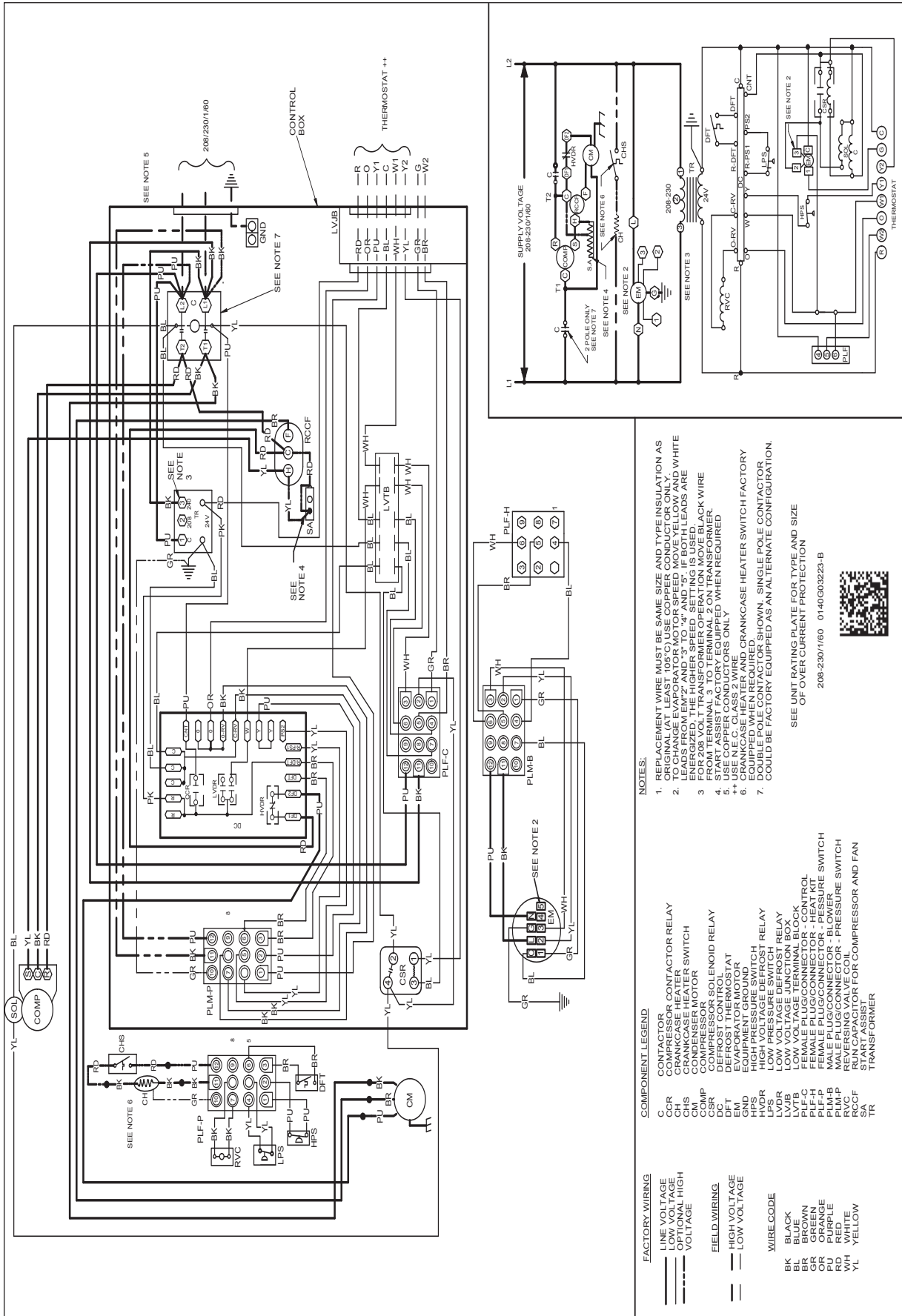
---	HIGH VOLTAGE
---	LOW VOLTAGE

**WIRE CODE**

BK	BLACK
BR	BROWN
GR	GREEN
OR	ORANGE
RD	RED
WH	WHITE
YL	YELLOW

**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.



NOTES:

1. REPLACEMENT WIRE MUST BE SAME SIZE AND TYPE INSULATION AS LEADS FROM EM<sup>2</sup> AND <sup>3</sup>1" TO <sup>4</sup>" AND <sup>5</sup>" IF BOTH LEADS ARE 1/2" TO 1" IN DIAMETER.
2. TO CHANGE EVAPORATOR MOTOR SPEED MOVE YELLOW AND WHITE LEADS FROM EM<sup>2</sup> AND <sup>3</sup>1" TO <sup>4</sup>" AND <sup>5</sup>".
3. FOR 208 VOLT TRANSFORMER OPERATION MOVE BLACK WIRE FROM TERMINAL 3 TO TERMINAL 2 ON TRANSFORMER.
4. START ASSIS (FACTORY EQUIPPED) ONLY.
5. CRANKCASE HEATER AND CRANKCASE HEATER SWITCH FACTORY EQUIPPED AS AN ALTERNATE CONFIGURATION.
6. CRANKCASE HEATER AND CRANKCASE HEATER SWITCH FACTORY EQUIPPED AS AN ALTERNATE CONFIGURATION.
7. DOUBLE POLE CONTACTOR SHOWN, SINGLE POLE CONTACTOR COULD BE FACTORY EQUIPPED AS AN ALTERNATE CONFIGURATION.

COMPONENT LEGEND:

- C CONTACTOR
- CH CRANKCASE HEATER
- CHS CRANKCASE HEATER SWITCH
- CM COMPRESSOR MOTOR
- CM<sup>2</sup> COMPRESSOR MOTOR
- CSR COMPRESSOR SOLENOID RELAY
- DC DEFROST CONTROL
- EM<sup>2</sup> EVAPORATOR MOTOR
- EM<sup>3</sup> EVAPORATOR MOTOR
- HPS HIGH PRESSURE SWITCH
- LFS LOW PRESSURE SWITCH
- LVR LOW VOLTAGE DEFROST RELAY
- LVTB LOW VOLTAGE DEFROST RELAY
- LVTB LOW VOLTAGE DEFROST RELAY
- PLM-B FEMALE PLUG/CONNECTOR - CONTROL
- PLM-F FEMALE PLUG/CONNECTOR - HEAT KIT
- PLM-P MALE PLUG/CONNECTOR - BLOWER
- PLM-S MALE PLUG/CONNECTOR - PRESSURE SWITCH
- RCF RUN CAPACITOR FOR COMPRESSOR AND FAN
- SA START ASSIST
- TR TRANSFORMER

FACTORY WIRING

- LINE VOLTAGE
  - - - LOW VOLTAGE
  - INITIAL HIGH VOLTAGE
- FIELD WIRING
- HIGH VOLTAGE
  - - - LOW VOLTAGE
- WIRE CODE
- BK BLACK
  - BL BLUE
  - BR BROWN
  - GR GREEN
  - RD RED
  - PU PURPLE
  - YL YELLOW

SEE UNIT RATING PLATE FOR TYPE AND SIZE OF OVER CURRENT PROTECTION  
208-230/1160 014-0030223-B



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.

ACCESSORY DESCRIPTION	ITEM NUMBER	
	MEDIUM CHASSIS	LARGE CHASSIS
Concentric Kit	CDK36	CDK4872
Downflow Economizer	GPJMED102	GPJMED103
Downflow Internal Filter Rack	DDNIFRPGMM	DDNIFRPGML
Downflow Manual Damper	PGMDD102	PGMDD103
Downflow Motorized Damper	PGMDMD102	PGMDMD103
Downflow Square to Round	SQRPG102	SQRPG103
Economizer Wiring Harness (2-4 Ton)	0259G00215	0259G00215
Economizer Wiring Harness (5 Ton)	N/A	0259L00411
External Horizontal Filter Rack	GPGHFR102	GPGHFR103
Horizontal Duct Cover	20464501PDGK	20464502PDGK
Horizontal Economizer	DHZECNJPCHM	DHZECNJPCHL
Horizontal Manual Damper	PGMDH102	PGMDH103
Horizontal Motorized Damper	PGMDMH102	PGMDMH103
Horizontal Square to Round	SQRPGH102	SQRPGH103
Outdoor Thermostat & Emergency Heat Relay Kit	OT/EHR18-60	OT/EHR18-60
Outdoor Thermostat Kit w/ Lockout Stat	OT18-60A	OT18-60A
Roof Curb	D14CRBPGCHMA	D14CRBPGCHMA

**SINGLE-POINT KIT ACCESSORY KITS**

Select the single-point kit accessory based on the unit model.

MODEL	SINGLE-POINT KIT
GPH1424M41**	SPK-30
GPH1430M41**	SPK-35
GPH1436M41**	SPK-40
GPH1443M41**	SPK-40
GPH1449M41**	SPK-50
GPH1460M41**	SPK-60