MRCOOL VersaPro Series Gas Package Unit Instruction Manual

Contents

MRCOOL VersaPro Series Gas Package Unit

Features

- LP conversion kit provided.
- Aluminized steel tubular heat exchanger.
- Quiet multi-speed circulation blower.
- Direct spark ignition.
- High quality heat exchanger.
- Horizontal or down flow application.
- Convenient access panels.
- AHRI Certified and ETL listed.

Nomenclature

M	P	G	24	S	060	M	4	13	B
1	2	3	4	5	6	7	8	9	10

Legend		
No.	**Code**	**Remarks**
1	M	MRCOOL
2	P	Packaged
3	G	Gas & Electric
4	24	Cooling Capacity: 24: 24 kBtu/h; 30: 30 kBtu/h; 36: 36 kBtu/h; 42: 42 kBtu/h; 48: 48 kBtu/h; 60: 60 kBtu/h;
5	S	Stage type: S: Single stage; M: Multi-speed
6	060	Heating capacity: 060: 60 kBtu/h; 090: 90 kBtu/h; 110: 110 kBtu/h;
7	M	M = Multi-Position (Horizontal/Downflow H = Horizontal
8	4	Refrigerant type: 4 = R410A
9	13	SEER2: 13.4
10	B	3rd Generation

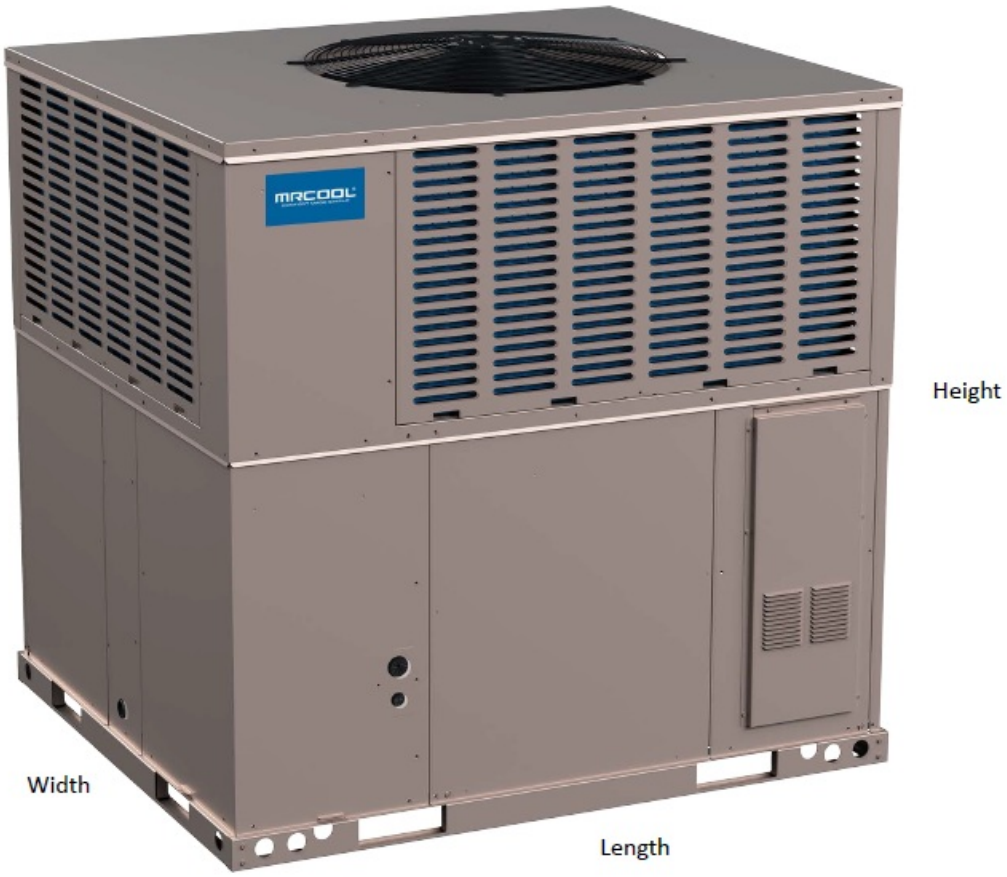
Specifications

	MPG24S060M413B	MPG30S060M413B	MPG36S090M413B	MPG42S090M413B
NOMINAL CAPACITY				
Cooling (BTU/h)	24,000	30,000	36,000	42000
Heating (BTU/h) Input Heating (BTU/h) Output AFUETemperature Rise Range (F)	60000480008130-60	60000480008130-60	90000720008140-70	90000720008135-65
ELECTRICAL DATA Voltage / Phase (60 Hz) Min. / Max. VoltageMCAMOP	208/230 / 1187/2531925	208/230 / 1187/2532130	208/230 / 1187/2532335	208/230 / 1187/2532840
COMPRESSORType StageRLALRA	Rotary Single 11.043.0	Rotary Single 13.058.0	Rotary Single 14.072.0	Scroll Single 16112.3
OUTDOOR COIL Type TubeSize(O.D)	Microchannel 20/32	Microchannel 20/32	Microchannel 20/32	Microchannel 20/32
OUTDOOR FAN MOTOR Motor Type Horsepower (HP) Full Load Amps (FLA)Rated RPM	PSC 1/120.61900	PSC1/61850	PSC1/61850	PSC1/31.91050
INDOOR COIL Type Tube Size(O.D)	Tube & Fin 9/32	Tube & Fin 9/32	Tube & Fin 9/32	Tube & Fin 9/32
INDOOR BLOWER MOTOR Motor Type Capacitor(uF) Horsepower (HP) Full Load Amps (FLA)Rated RPM	ECM/ 1/24.21050	ECM/ 1/24.21050	ECM/ 1/24.21050	ECM/ 3/45.71050
REFRIGERATION SYSTEM Refrigerant Control Refrigerant Charge (oz.)	Orifice47.6	Orifice52.9	Orifice52.9	Orifice70.5
SOUND POWER (DB)	79	79	79	80

	MPG48S090M413B	MPG60S110M413B
NOMINAL CAPACITY		
Cooling (BTU/h)	48,000	60000
Heating (BTU/h) Input Heating (BTU/h) Output AFUE Temperature Rise Range (F)	90000 72000 81 30-60	110000 88000 81 30-60

ELECTRICAL DATA Voltage / Phase (60 Hz) Min. / Max. Voltage MCA MOP	208/230 / 1 187/253 31 50	208/230 / 1 187/253 37 60
COMPRESSOR Type Stage RLA LRA	Rotary Single 13.0 58.0	Scroll Single 16.0112.3
OUTDOOR COIL Type Tube Size(O.D)	Microchannel 20/32	Microchannel 20/32
OUTDOOR FAN MOTOR Motor Type Horsepower (HP) Full Load Amps (FLA) Rated RPM	PSC 1/3 1.9 1050	PSC 1/3 1.9 1050
INDOOR COIL Type Tube Size(O.D)	Tube & Fin 9/32	Tube & Fin 9/32
INDOOR BLOWER MOTOR Motor Type Capacitor(uF) Horsepower (HP) F ull Load Amps (FLA) Rated RPM	ECM / 3/4 5.7 1050	ECM / 3/4 5.7 1050
REFRIGERATION SYSTEM Refrigerant Control Refrigerant Charge (oz.)	Orifice 72.3	Orifice 74.1
SOUND POWER (DB)	80	80

Dimensions



	MPG24S060M413B	MPG30S060M413B	MPG36S090M413B	MPG42S090M413B
UNIT DIMENSION AND WEIGHTS Height (in.) Width (in.) Length (in.) Net Weight (lbs.)	46-13/16 35-1/16 50-11/16 428	46-13/16 35-1/16 50-11/16 437	46-13/16 35-1/16 50-11/16 443	46-13/16 35-1/16 50-11/16 474

	MPG48S090M413B	MPG60S110M413B
UNIT DIMENSION AND WEIGHTS Height (in.) Width (in.) Length (in.) Net Weight (lbs.)	51-7/16 44-13/16 50-9/16 536	51-7/16 44-13/16 50-9/16 569

Airflow Data

Model Number	Motor Speed		External Static Pressure-Inches W.C.[kPa]										
			0[0]	0.1[.02]	0.2[.05]	0.3[.07]	0.4[.10]	0.5[.12]	0.6[.15]	0.7[.17]	0.8[.20]	0.9[.23]	1.0[.25]

24	Low (Tap1)	CFM	/	855	792	727	669	/	/	/	/	/	/
		Current /A	/	1.39	1.44	1.46	1.5	/	/	/	/	/	/
		Power/ W	/	140	146	147	152	/	/	/	/	/	/
	Middle-1 (Tap2)	CFM	/	/	/	/	827	771	689	621	568	/	/
		Current /A	/	/	/	/	1.94	2	2.05	2.08	2.11	/	/
		Power/ W	/	/	/	/	212	221	225	230	234	/	/
	Middle-2 (Tap3)	CFM	/	/	/	/	/	/	/	846	774	710	660
		Current /A	/	/	/	/	/	/	/	2.72	2.73	2.82	2.86
		Power/ W	/	/	/	/	/	/	/	317	312	330	335
	Middle-3 (Tap4)	CFM	/	/	/	/	/	/	/	/	/	844	797
		Current /A	/	/	/	/	/	/	/	/	/	3.24	3.28
		Power/ W	/	/	/	/	/	/	/	/	/	385	391
30	Low (Tap1)	CFM	917	855	792	/	/	/	/	/	/	/	/
		Current /A	1.37	1.39	1.44	/	/	/	/	/	/	/	/
		Power/ W	137	140	146	/	/	/	/	/	/	/	/
	Middle-1 (Tap2)	CFM	1051	997	940	885	827	771	/	/	/	/	/
		Current /A	1.78	1.81	1.86	1.88	1.94	2	/	/	/	/	/
		Power/ W	191	196	201	201	212	221	/	/	/	/	/
	Middle-2 (Tap3)	CFM	/	/	/	1049	995	947	898	846	774	710	/
		Current /A	/	/	/	2.51	2.57	2.6	2.67	2.72	2.73	2.82	/
		Power/ W	/	/	/	288	297	299	311	317	312	330	/
	Middle-3 (Ta	CFM	/	/	/	/	/	1045	997	951	908	844	797

	p4)	Current /A	/	/	/	/	/	3.03	3.04	3.13	3.18	3.24	3.28
		Power/ W	/	/	/	/	/	359	354	371	378	385	391
	High (Tap5)	CFM	/	/	/	/	/	/	/	/	/	1032	991
		Current /A	/	/	/	/	/	/	/	/	/	4.03	3.98
		Power/ W	/	/	/	/	/	/	/	/	/	495	482
36	Low (Tap1)	CFM	917	855	/	/	/	/	/	/	/	/	/
		Current /A	1.37	1.39	/	/	/	/	/	/	/	/	/
		Power/ W	137	140	/	/	/	/	/	/	/	/	/
	Middle-1 (Tap2)	CFM	1051	997	940	885	/	/	/	/	/	/	/
		Current /A	1.78	1.81	1.86	1.88	/	/	/	/	/	/	/
		Power/ W	191	196	201	201	/	/	/	/	/	/	/
	Middle-2 (Tap3)	CFM	1204	1153	1100	1049	995	947	898	/	/	/	/
		Current /A	2.4	2.45	2.44	2.51	2.57	2.6	2.67	/	/	/	/
		Power/ W	275	282	276	288	297	299	311	/	/	/	/
	Middle-3 (Tap4)	CFM	1281	1240	1190	1142	1092	1045	997	951	908	/	/
		Current /A	2.82	2.84	2.85	2.96	3	3.03	3.04	3.13	3.18	/	/
		Power/ W	331	333	330	350	357	359	354	371	378	/	/
	High (Tap5)	CFM	/	/	/	/	1280	1244	1194	1140	1083	1032	991
		Current /A	/	/	/	/	3.95	4.08	4.07	4	4.06	4.03	3.98
		Power/ W	/	/	/	/	481	507	504	486	502	495	482

Model			External Static Pressure-Inches W.C.[kPa]	

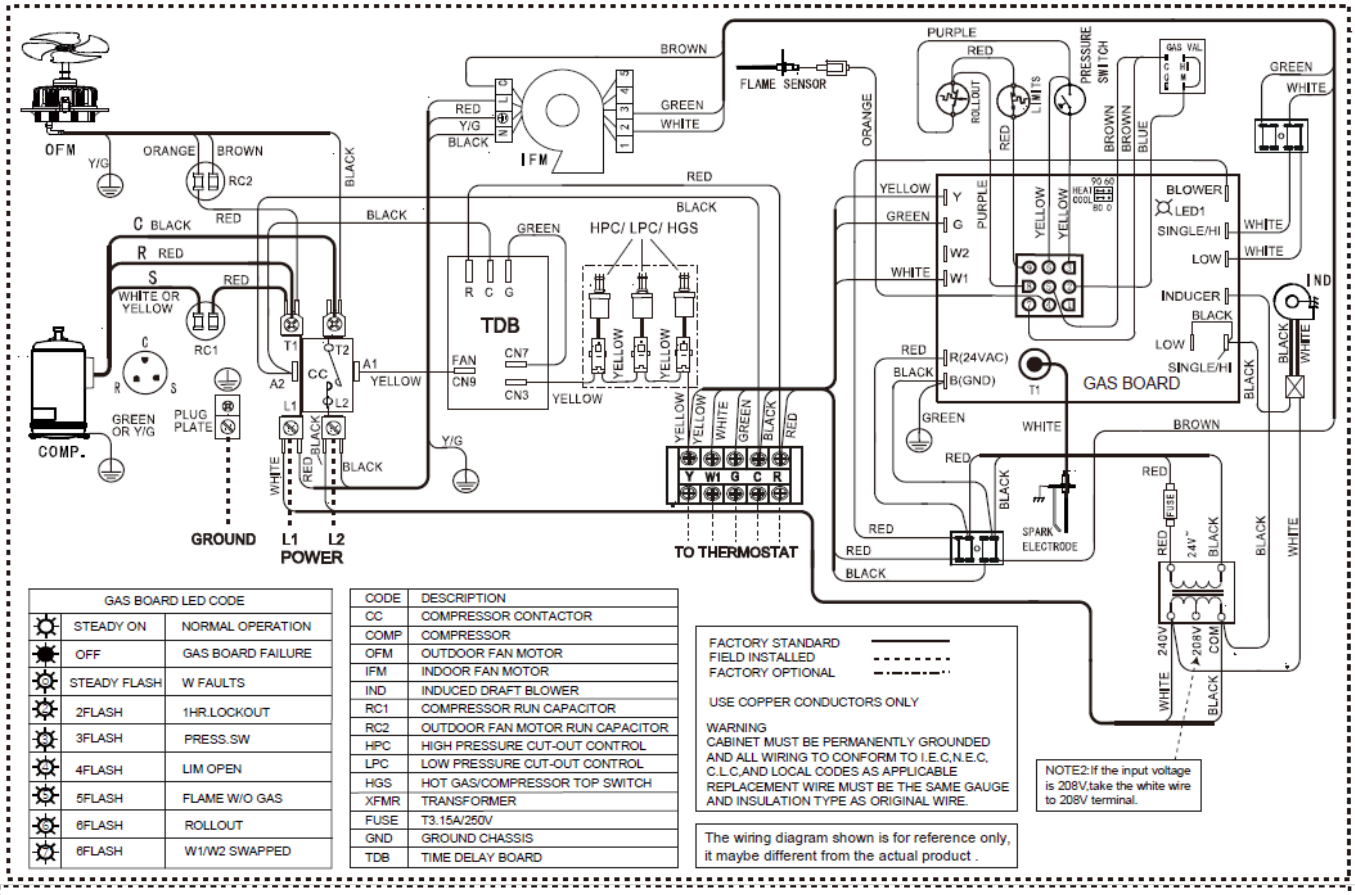
Number	Motor Speed		0[0]	0.1[.02]	0.2[.05]	0.3[.07]	0.4[.10]	0.5[.12]	0.6[.15]	0.7[.17]	0.8[.20]	0.9[.23]	1.0[.25]
42	Middle-1 (Tap2)	CFM	1153	1102	1056	/	/	/	/	/	/	/	/
		Current/A	2.09	2.13	2.18	/	/	/	/	/	/	/	/
		Power/W	227	233	239	/	/	/	/	/	/	/	/
	Middle-2 (Tap3)	CFM	1426	1388	1343	1306	1267	1229	1192	1156	1093	/	/
		Current/A	3.49	3.53	3.55	3.66	3.71	3.77	3.84	3.88	3.92	/	/
		Power/W	416	422	418	438	445	453	463	468	473	/	/
	Middle-3 (Tap4)	CFM	/	/	/	/	1472	1428	1392	1354	1309	/	/
		Current/A	/	/	/	/	5.08	5.06	5.09	5.13	5.12	/	/
		Power/W	/	/	/	/	634	629	633	639	638	/	/
	High (Tap5)	CFM	/	/	/	/	/	1500	1460	1398	1321	/	/
		Current/A	/	/	/	/	/	5.65	5.61	5.41	5.19	/	/
		Power/W	/	/	/	/	/	710	700	670	640	/	/
48	Middle-1 (Tap2)	CFM	1251	/	/	/	/	/	/	/	/	/	/
		Current/A	1.67	/	/	/	/	/	/	/	/	/	/
		Power/W	192	/	/	/	/	/	/	/	/	/	/
	Middle-2 (Tap3)	CFM	1547	1473	1424	1374	1323	1267	1213	/	/	/	/
		Current/A	2.8	2.87	2.95	3.04	3.12	3.21	3.3	/	/	/	/
		Power/W	340	350	360	371	382	394	407	/	/	/	/
	Middle-3 (Tap4)	CFM	1789	1741	1695	1649	1605	1559	1510	1460	1409	1359	1313
		Current/A	4.11	4.19	4.28	4.36	4.45	4.54	4.64	4.74	4.83	4.92	5

		Power/W	517	528	540	551	564	576	589	603	615	627	639
	High (Tap5)	CFM	/	/	/	/	/	1755	1696	1630	1563	1490	1438
		Current/A	/	/	/	/	/	5.79	5.76	5.73	5.71	5.68	5.66
		Power/W	/	/	/	/	/	750	745	741	737	733	730
60	Middle-2 (Tap3)	CFM	1547	1473	/	/	/	/	/	/	/	/	/
		Current/A	2.8	2.87	/	/	/	/	/	/	/	/	/
		Power/W	340	350	/	/	/	/	/	/	/	/	/
	Middle-3 (Tap4)	CFM	1789	1741	1695	1649	1605	1559	1510	1460	/	/	/
		Current/A	4.11	4.19	4.28	4.36	4.45	4.54	4.64	4.74	/	/	/
		Power/W	517	528	540	551	564	576	589	603	/	/	/
	High (Tap5)	CFM	2035	1976	1927	1875	1815	1755	1696	1630	1563	1490	1438
		Current/A	5.66	5.74	5.81	5.85	5.82	5.79	5.76	5.73	5.71	5.68	5.66
		Power/W	733	744	754	758	754	750	745	741	737	733	730

Airflow performance data is based on cooling performance with a coil and no filter in place. Use this performance table for appropriate unit size, external static applied to unit and allow operation within the minimum and maximum limits shown in table below for both cooling and electric heat operation.

Wiring Diagrams

MPG24S060M413B



GAS BOARD LED CODE	
STEADY ON	NORMAL OPERATION
OFF	GAS BOARD FAILURE
STEADY FLASH	W FAULTS
2FLASH	1HR.LOCKOUT
3FLASH	PRESS.SW
4FLASH	LIM OPEN
5FLASH	FLAME W/O GAS
6FLASH	ROLLOUT
6FLASH	W1/W2 SWAPPED

CODE	DESCRIPTION
CC	COMPRESSOR CONTACTOR
COMP	COMPRESSOR
OFM	OUTDOOR FAN MOTOR
IFM	INDOOR FAN MOTOR
IND	INDUCED DRAFT BLOWER
RC1	COMPRESSOR RUN CAPACITOR
RC2	OUTDOOR FAN MOTOR RUN CAPACITOR
HPC	HIGH PRESSURE CUT-OUT CONTROL
LPC	LOW PRESSURE CUT-OUT CONTROL
HGS	HOT GAS/COMPRESSOR TOP SWITCH
XFMR	TRANSFORMER
FUSE	T3.15A/250V
GND	GROUND CHASSIS
TDB	TIME DELAY BOARD

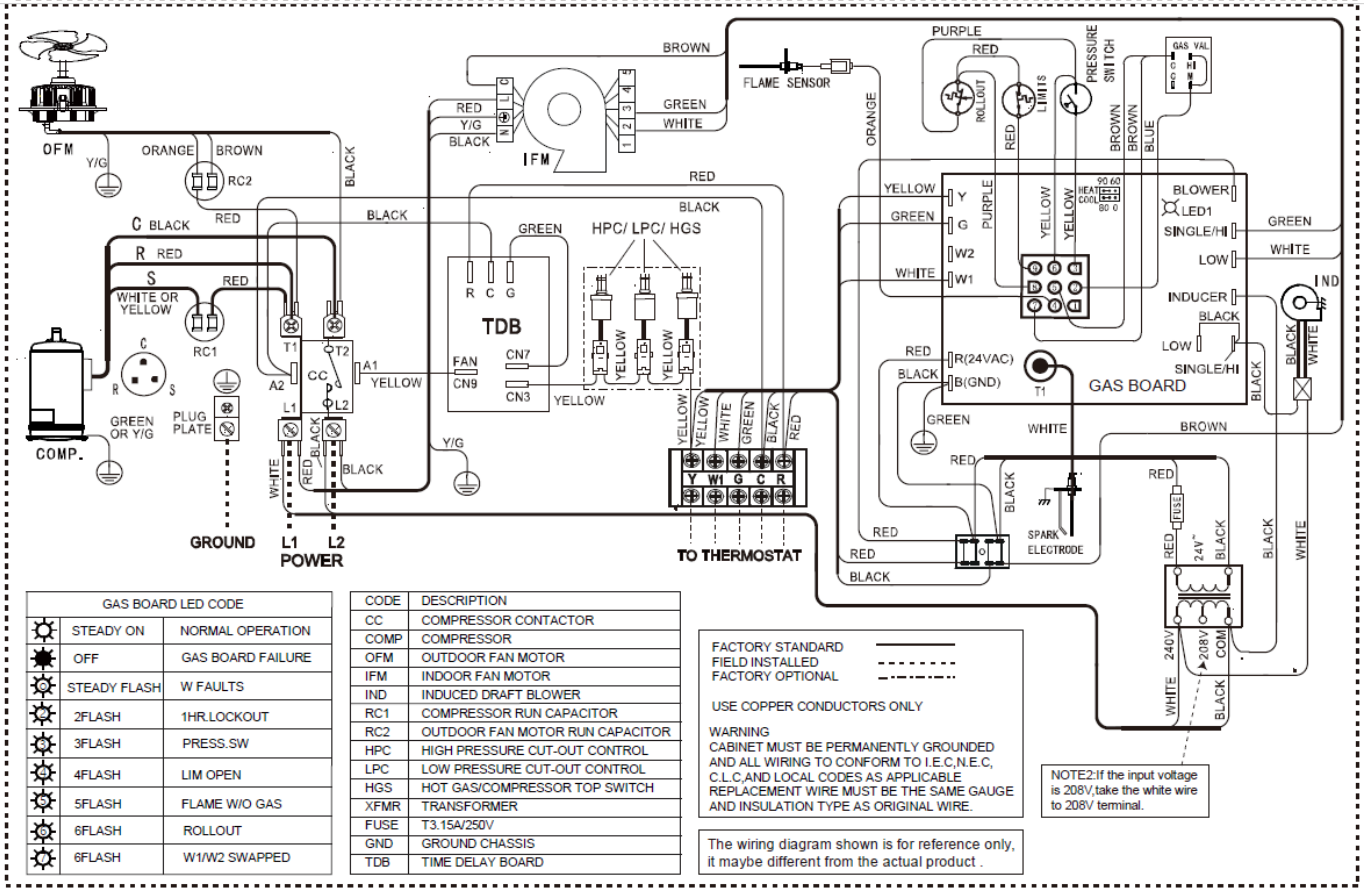
FACTORY STANDARD
FIELD INSTALLED
FACTORY OPTIONAL

USE COPPER CONDUCTORS ONLY

WARNING
CABINET MUST BE PERMANENTLY GROUNDED AND ALL WIRING TO CONFORM TO I.E.C,N.E.C, C.L.C,AND LOCAL CODES AS APPLICABLE REPLACEMENT WIRE MUST BE THE SAME GAUGE AND INSULATION TYPE AS ORIGINAL WIRE.

The wiring diagram shown is for reference only, it maybe different from the actual product .

NOTE2:If the input voltage is 208V,take the white wire to 208V terminal.



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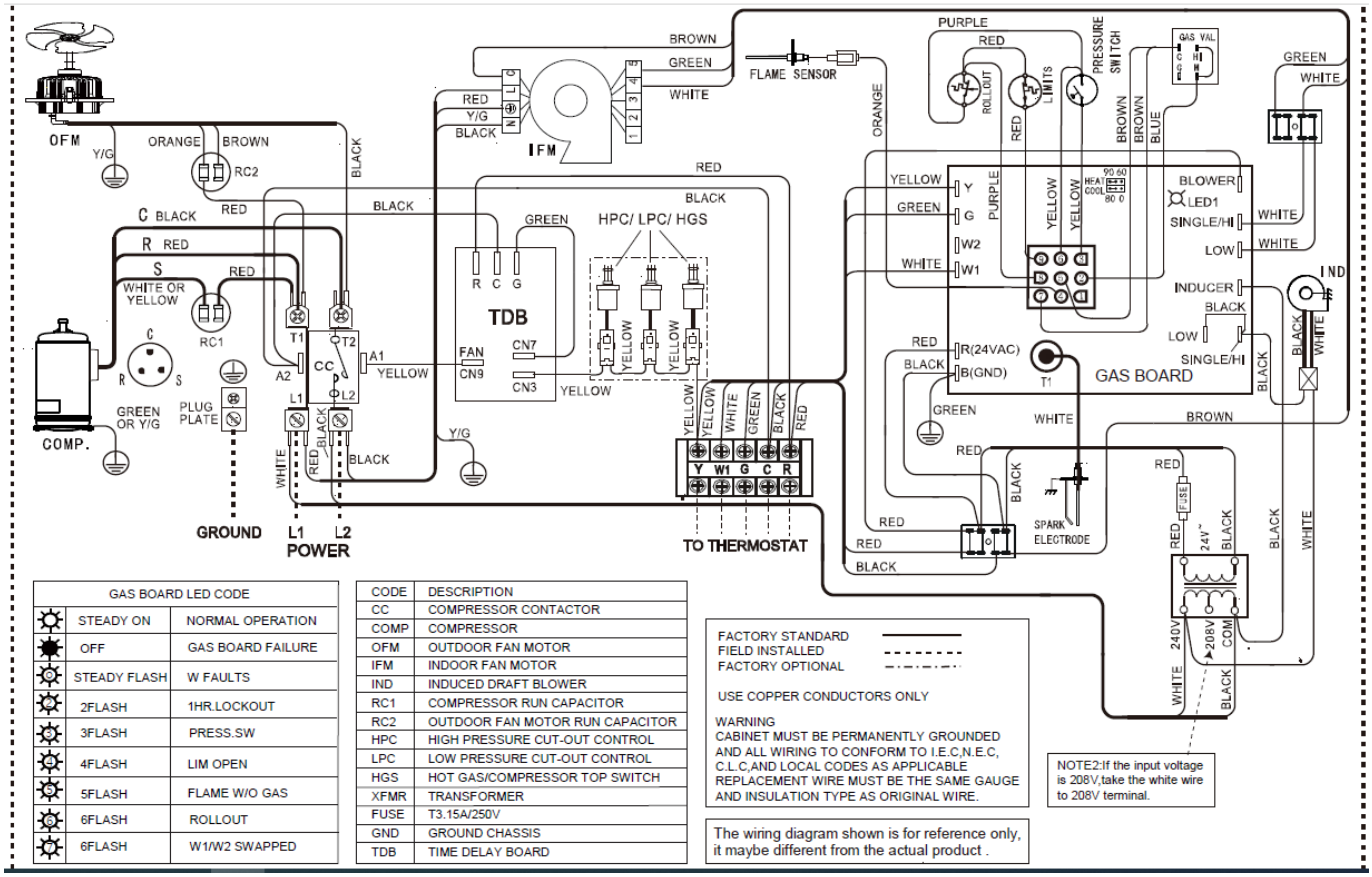

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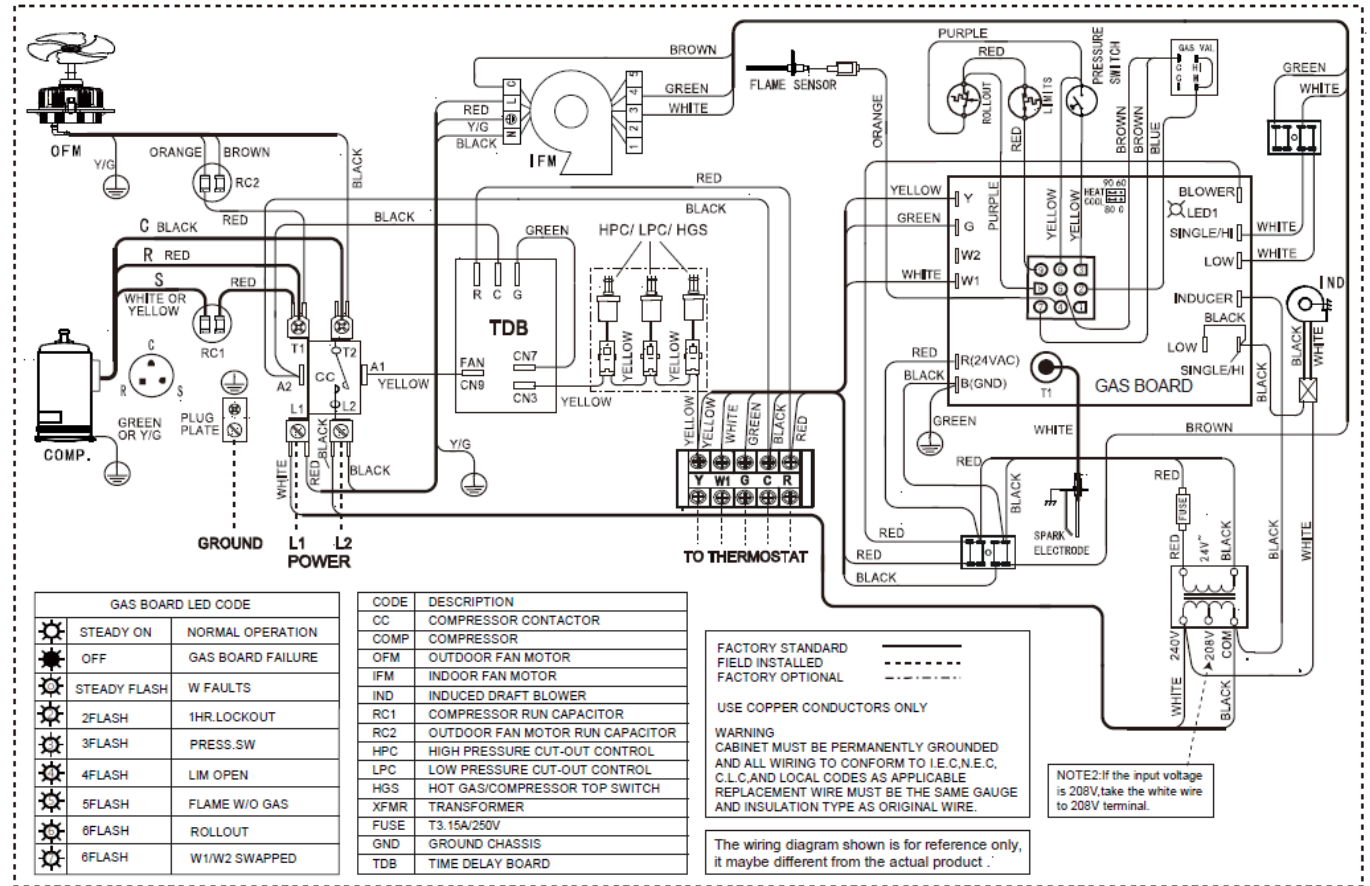

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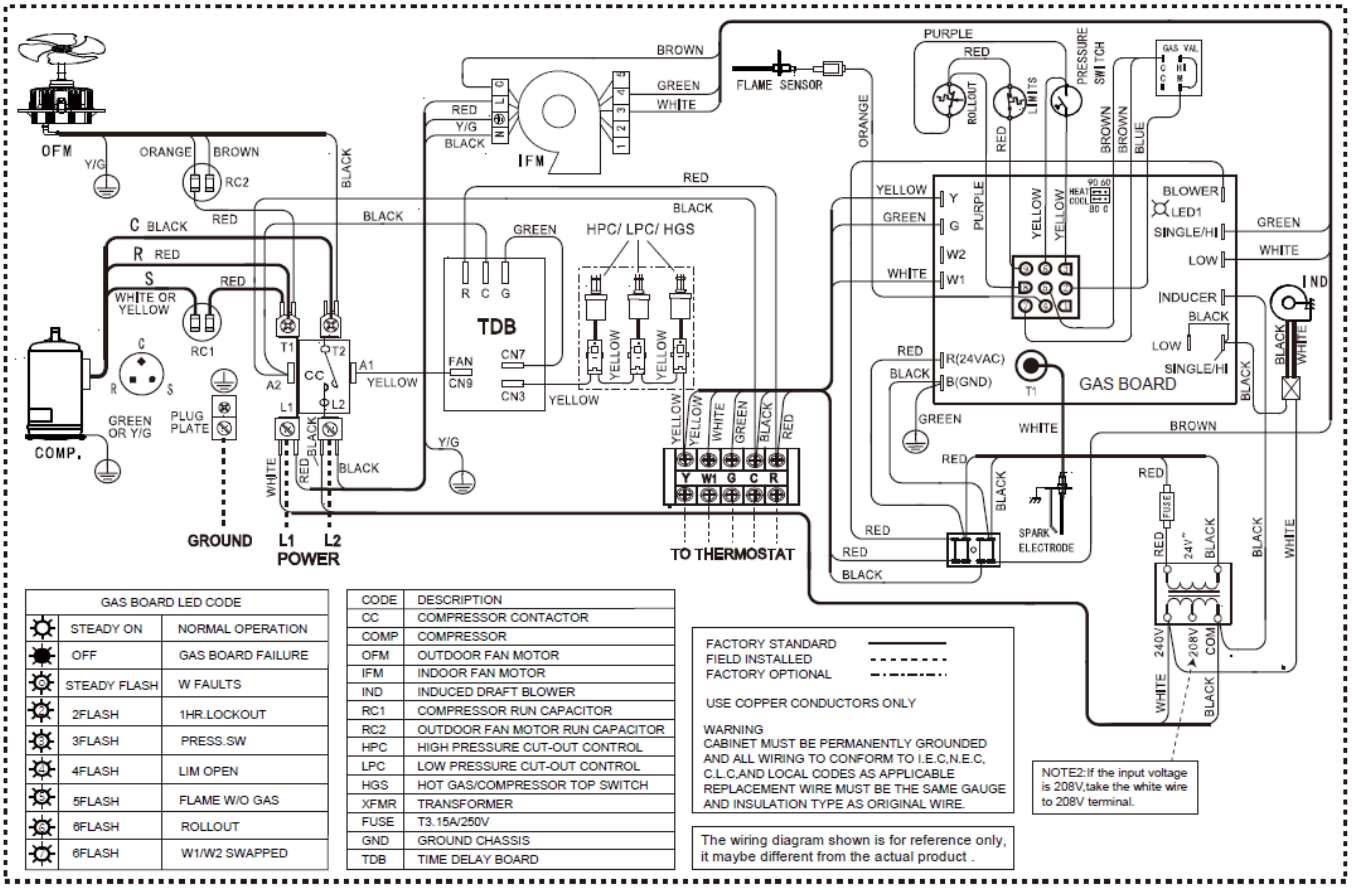

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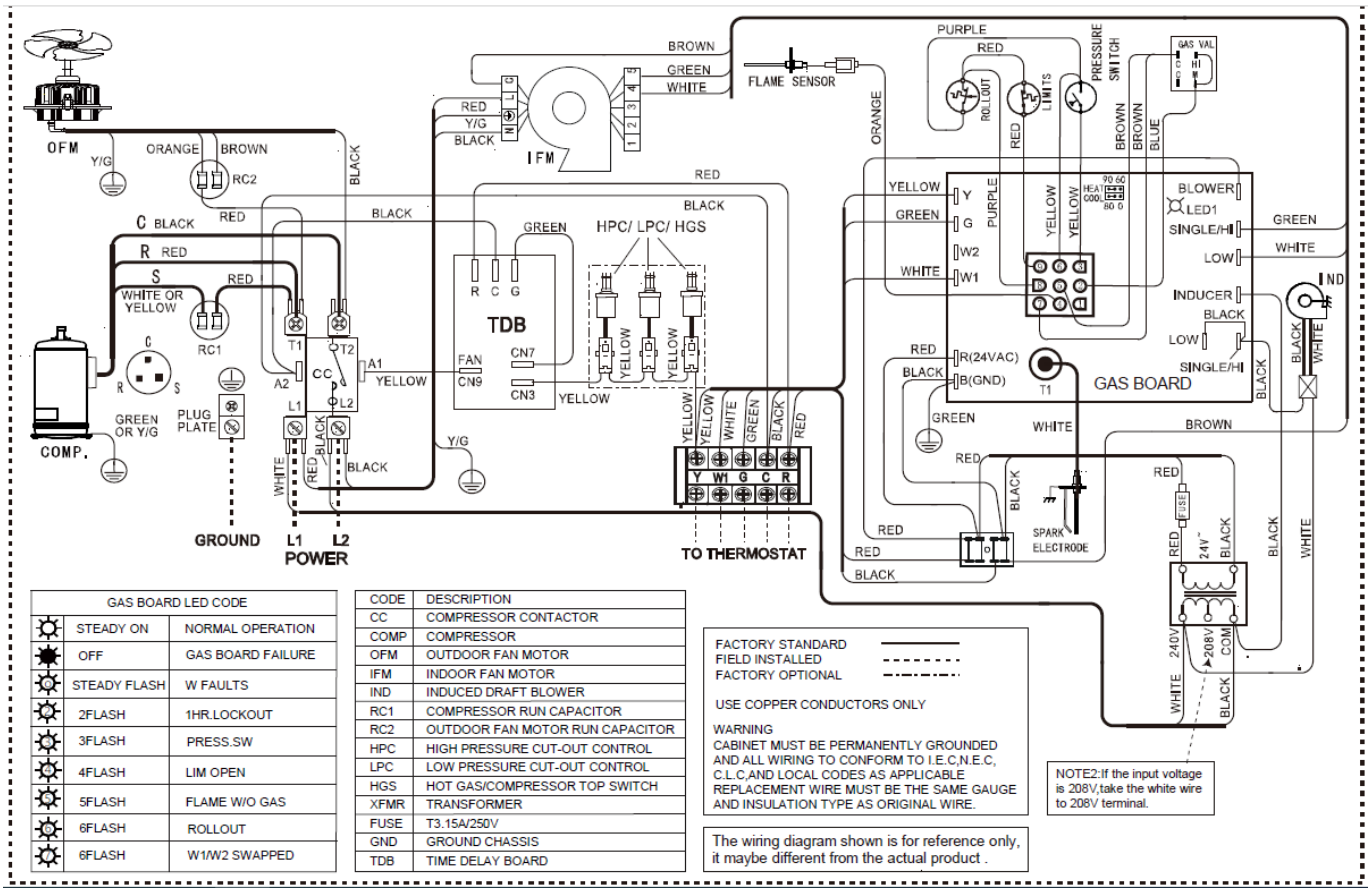

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Documents / Resources

	MRCOOL VersaPro Series Gas Package Unit [pdf] Instruction Manual 24, 30, 36, 42, VersaPro Series Gas Package Unit, VersaPro Series, Gas Package Unit, Package Unit

References

- User Manual