

HEATING INPUT : 40,000–100,000 BTU/H

SINGLE-STAGE, MULTI-SPEED ECM,
MULTI-POSITION GAS FURNACE
80% AFUE



Contents

Nomenclature.....	2
Product Specifications.....	3
Dimensions.....	5
Airflow Data.....	7
Wiring Diagrams.....	15
Accessories.....	16
Minimum Filter Sizes.....	16

Standard Features

- Heavy-duty aluminized-steel, dual-diameter tubular heat exchanger
- Single-stage gas valve
- Durable Hot-surface igniter
- Quiet, single-speed draft induced
- Self-diagnostic control board
- Color-coded low-voltage terminals
- Multi-speed ECM blower motor
- California Low NOx emissions models available
- Can no longer be installed in California's South Coast Air Quality Management District (SCAQMD) on or after October 1, 2019.
- AHRI Certified; ETL Listed

Cabinet Features

- Installation:
 - VMES80-upflow, horizontal left or right
 - VCES80- downflow, horizontal left or right
- Convenient left or right connection for gas and electrical service
- Heavy-gauge steel cabinet with durable baked-enamel finish
- Foil faced insulated heat exchanger



* Complete warranty details available from your local dealer or at www.goodmanmfg.com/gmc. To receive the 1-Year Unit Replacement Limited Warranty, 20-Year Heat Exchanger Limited Warranty (good for as long as you own your home) and 7-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Quebec.

	V	M	E	S	80	040	4	C	*	**	
	1	2	3	4	5,6	7,8,9	10	11	12	13,14	
BRAND	V-GMC® Brand										ENGINEERING
											Major /Minor Revisions * Not used for inventory control.
CONFIGURATION	M- Upflow/Horizontal C- Downflow/Horizontal										NOX
											N- Natural Gas X- Low NOx
MOTOR	V- Variable Speed ECM / ComfortBridge™ E- Multi-Speed ECM S- Single Speed										CABINET WIDTH
											A- 14" C- 21" B- 17½" D- 24½"
GAS VALVE	M- Modulating S- Single Stage C- Two Stage										MAXIMUM CFM
											2- 800 CFM 4- 1600 CFM 3- 1200 CFM 5- 2000 CFM
AFUE	80- 80% AFUE										MBTU/h
											040- 40,000 BTU/h 100- 100,000 BTU/h 060- 60,000 BTU/h 120- 120,000 BTU/h 080- 80,000 BTU/h 140- 140,000 BTU/h

	VMES80 0403AX	VMES80 0603AX	VMES80 0604BX	VMES80 0804BX	VMES80 0805CX	VMES80 1005CX
HEATING CAPACITY						
Input	40,000	60,000	60,000	80,000	80,000	100,000
Natural Gas Output	32,000	48,000	48,000	64,000	64,000	80,000
LP Gas Output	32,000	48,000	48,000	64,000	64,000	80,000
AFUE ¹	80	80	80	80	80	80
Available AC @ 0.5" ESP	3	3	4	4	5	5
Temperature Rise Range (°F)	25-55	20-50	20-50	35-65	35-65	35-65
CIRCULATOR BLOWER						
Size (D x W)	10" x 6"	10" x 6"	10" x 8"	10" x 8"	10" x 10"	10" x 10"
Horsepower @1075 RPM	0.5	0.5	0.75	0.75	0.75	0.75
Speed	5	5	5	5	5	5
Vent Diameter ²	4"	4"	4"	4"	4"	4"
No. of Burners	2	3	3	4	4	5
ELECTRICAL DATA						
Min. Circuit Ampacity ³	8.7	8.7	12.45	12.45	12.45	12.45
Max. Overcurrent Device (amps) ⁴	15	15	15	15	15	15
SHIP WEIGHT (LBS)						
	86	90	108	120	132	132

¹ DOE AFUE based upon Isolated Combustion System (ICS)

² Vent and combustion air diameters may vary depending upon vent length. Refer to the latest editions of the National Fuel Gas Code NFPA 54/ANSI Z223.1 (in the USA) and the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2 (in Canada).

³ Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

⁴ Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size.
May use fuses or HACR-type circuit breakers of the same size as noted.

NOTES

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

	VCES80 0603AX	VCES80 0804BX
HEATING CAPACITY		
Input	60,000	80,000
Natural Gas Output	48,000	64,000
LP Gas Output	48,000	64,000
AFUE ¹	80	80
Available AC @ 0.5" ESP	3	4
Temperature Rise Range (°F)	30-60	35-65
CIRCULATOR BLOWER		
Size (D x W)	10" X 6"	10" X 8"
Horsepower @1075 RPM	1/2	3/4
Speed	5	5
Vent Diameter ²	4"	4"
No. of Burners	3	4
ELECTRICAL DATA		
Min. Circuit Ampacity ³	8.7	12.45
Max. Overcurrent Device (amps) ⁴	15	15
SHIP WEIGHT (LBS)		
	94	107

¹ DOE AFUE based upon Isolated Combustion System (ICS)

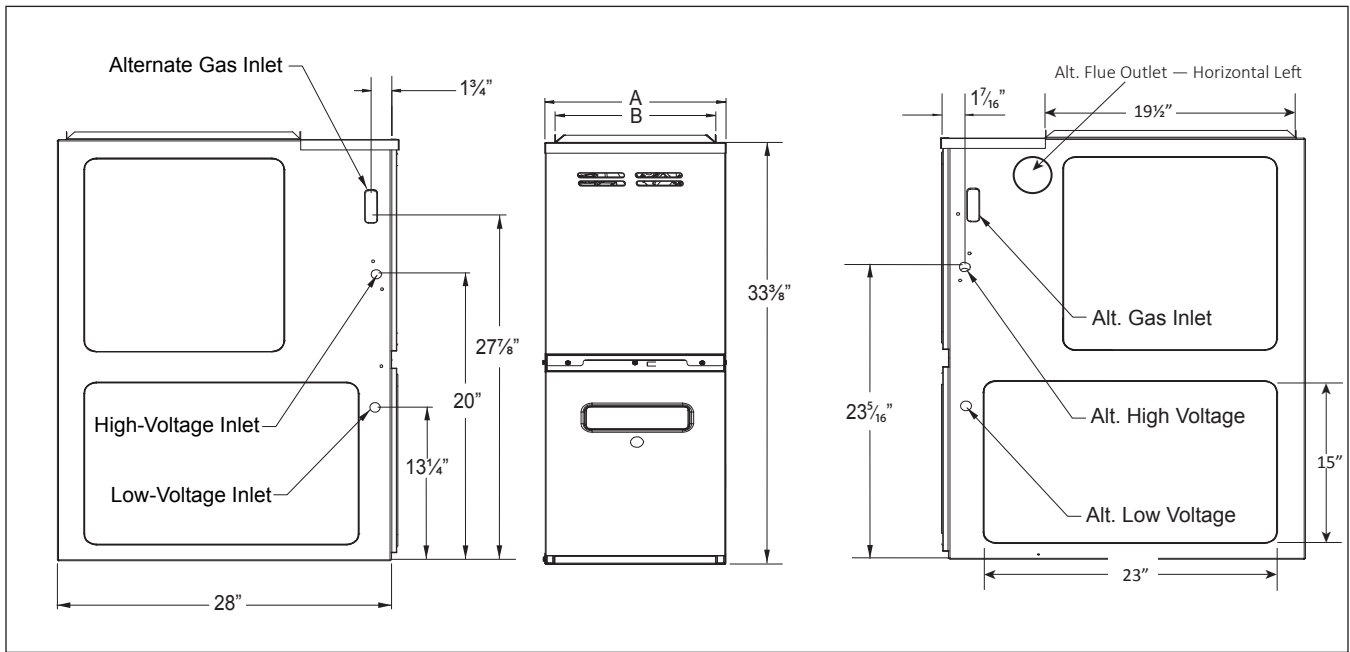
² Vent and combustion air diameters may vary depending upon vent length. Refer to the latest editions of the National Fuel Gas Code NFPA 54/ANSI Z223.1 (in the USA) and the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2 (in Canada).

³ Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

⁴ Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

NOTES

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.



MODEL	A	B
VMES800403AX	14"	12 1/2"
VMES800603AX	14"	12 1/2"
VMES800604BX	17 1/2"	16"

MODEL	A	B
VMES800804BX	17 1/2"	16"
VMES800805CX	21"	19 1/2"
VMES801005CX	21"	19 1/2"

NOTES

- Line voltage wiring can enter through the right or left side of furnace. Low-voltage wiring can enter through the right or left side of furnace.
- Conversion kits for high-altitude (4500+ ft) natural gas operation are available. Contact your Goodman distributor or dealer for details.
- Installer must supply the following gas line fittings, according to which entrance is used:
 Left: One 90° street elbow; one 2 1/2" pipe nipple; one 90° elbow; straight pipe; one ground joint union
 Right: Straight pipe to reach gas valve

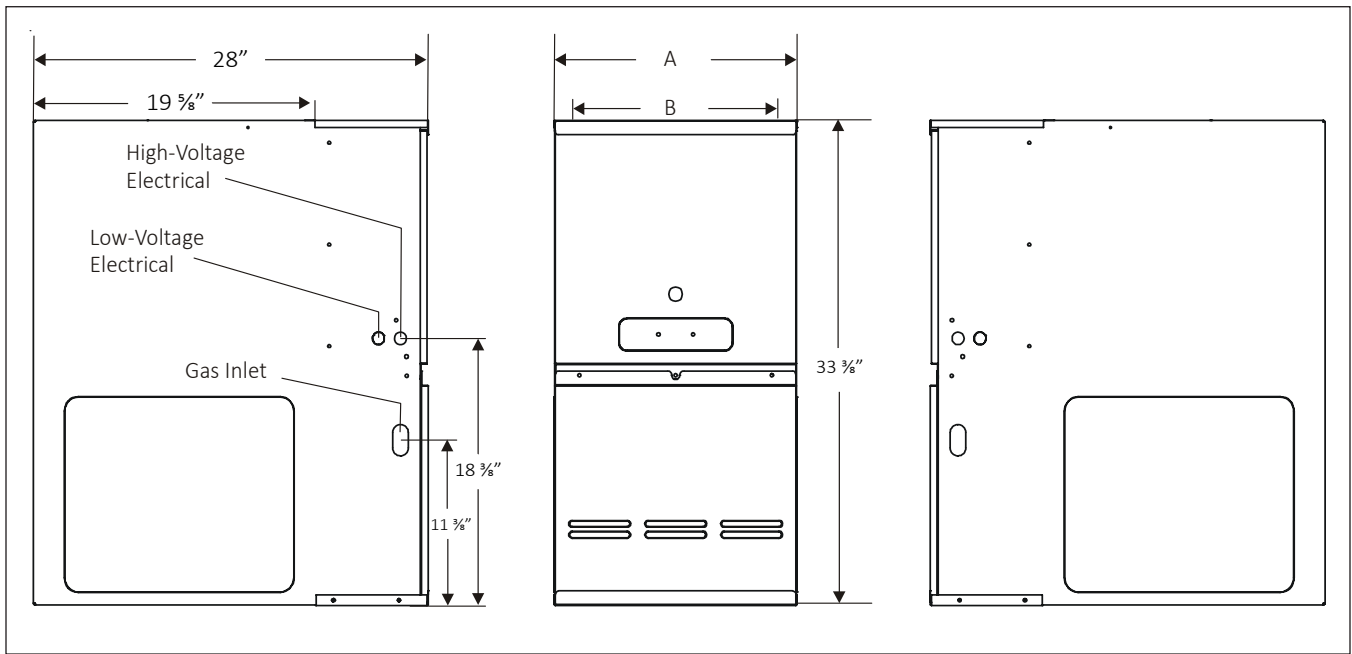
MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

SIDES	REAR	FRONT ¹	VENT ²		TOP
			SW	B	
1"	0"	3"	6"	1"	1"

¹ 24" clearance for serviceability recommended.

² Single Wall Vent (SW) to be used only as a connector. Refer to the latest editions of the National Fuel Gas Code NFPA 54/ ANSI Z223.1 (in the USA) and the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2 (in Canada).

Note: VMES80 approved for line contact in the horizontal position.



MODEL	A	B	NON-COMBUSTIBLE FLOOR BASE
VCES800603AX	14"	12½"	SBT14
VCES800804BX	17½"	16"	SBT17

NOTES

- Line voltage wiring can enter through the right or left side of furnace. Low-voltage wiring can enter through the right or left side of furnace.
- Conversion kits for high-altitude (4500+ ft) natural gas operation are available. Contact your Goodman distributor or dealer for details.

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

SIDES	REAR	FRONT ¹	VENT ²		TOP
			SW	B	
1"	0"	3"	6"	1"	1"

¹ 24" clearance for serviceability recommended.

² Single Wall Vent (SW) to be used only as a connector. Refer to the latest editions of the National Fuel Gas Code NFPA 54/ ANSI Z223.1 (in the USA) and the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2 (in Canada).

Note: VCES80 approved for line contact in the horizontal position.

CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE

MODEL	DIP SWITCHES S2-1, S2-2	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)															
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
		CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
VMES80 0403AX	OFF OFF	658	45	603	49	550	54	495	60	441	67	388	76	331	90	286	104
	ON OFF*	750	40	703	42	651	46	600	49	553	54	504	59	456	65	409	72
	ON ON	923	32	865	34	824	36	802	37	759	39	715	41	674	44	631	47
	OFF ON**	1138	N/A	1093	N/A	1057	N/A	1016	N/A	981	N/A	945	N/A	912	N/A	876	N/A
VMES80 0603AX	OFF OFF	681	65	617	72	566	79	511	87	458	97	405	110	358	124	311	143
	ON OFF*	1328	33	1274	35	1231	36	1192	37	1155	38	1114	40	1081	41	1047	42
	ON ON	964	46	906	49	856	52	810	55	788	56	745	60	702	63	662	67
	OFF ON	1151	39	1091	41	1050	42	1007	44	964	46	926	48	885	50	850	52
VMES80 0604BX	OFF OFF	757	59	683	65	618	72	558	80	486	91	414	107	354	126	278	160
	ON OFF*	1320	34	1264	35	1217	37	1171	38	1131	39	1091	41	1049	42	1007	44
	ON ON	1406	32	1358	33	1314	34	1267	35	1226	36	1205	37	1189	37	1147	39
	OFF ON**	1590	N/A	1542	N/A	1499	N/A	1454	N/A	1418	N/A	1413	N/A	1390	N/A	1356	N/A
VMES80 0804BX	OFF OFF	743	80	668	89	599	99	522	114	432	137	366	162	312	190	258	230
	ON OFF*	1408	42	1369	43	1319	45	1282	46	1242	48	1219	49	1193	50	1150	52
	ON ON	1179	50	1123	53	1073	55	1025	58	972	61	949	62	924	64	869	68
	OFF ON**	1574	N/A	1521	N/A	1481	N/A	1439	N/A	1398	N/A	1374	N/A	1335	N/A	1295	N/A
VMES80 0805CX	OFF OFF	822	72	754	79	652	91	566	105	499	119	428	138	346	171	294	202
	ON OFF*	1352	44	1281	46	1218	49	1152	51	1076	55	1026	58	964	61	901	66
	ON ON**	1669	N/A	1595	N/A	1527	N/A	1463	N/A	1407	N/A	1402	N/A	1363	N/A	1336	N/A
	OFF ON**	1904	N/A	1832	N/A	1777	N/A	1727	N/A	1678	N/A	1630	N/A	1579	N/A	1523	N/A
VMES80 1005CX	OFF OFF	789	94	719	103	637	116	545	136	458	162	378	196	324	229	273	271
	ON OFF*	1567	47	1516	49	1466	51	1423	52	1388	53	1342	55	1293	57	1243	60
	ON ON	1424	52	1378	54	1330	56	1274	58	1226	60	1172	63	1119	66	1071	69
	OFF ON**	1810	N/A	1764	N/A	1718	N/A	1682	N/A	1633	N/A	1596	N/A	1549	N/A	1510	N/A

¹ at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- This chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on the rating plate.
- The dashed (---) areas indicate a temperature rise not recommended for this model.
- At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.

CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE

MODEL	DIP SWITCHES S2-3, S2-4	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
VMES80 0403AX	OFF OFF*	658	603	550	495	441	388	331	286	238	198
	ON OFF	750	703	651	600	553	504	456	409	362	322
	OFF ON	1138	1093	1057	1016	981	945	912	876	836	744
	ON ON	1367	1321	1286	1255	1223	1190	1160	1133	1099	1068
VMES80 0603AX	OFF OFF*	681	617	566	511	458	405	358	311	265	215
	ON OFF	1328	1274	1231	1192	1155	1114	1081	1047	1013	978
	OFF ON	1151	1091	1050	1007	964	926	885	850	813	800
	ON ON	1389	1341	1295	1258	1221	1176	1140	1105	1076	1043
VMES80 0604BX	OFF OFF*	757	683	618	558	486	414	354	278	237	204
	ON OFF	1320	1264	1217	1171	1131	1091	1049	1007	965	923
	OFF ON	1590	1542	1499	1454	1418	1390	1356	1321	1282	1245
	ON ON	1804	1757	1712	1676	1637	1600	1566	1529	1501	1466
VMES80 0804BX	OFF OFF*	743	668	599	522	432	366	312	258	213	158
	ON OFF	1408	1369	1319	1282	1242	1193	1150	1109	1069	1025
	OFF ON	1574	1521	1481	1439	1398	1374	1335	1295	1259	1219
	ON ON	1810	1756	1711	1675	1637	1602	1569	1536	1500	1462
VMES80 0805CX	OFF OFF*	822	754	652	466	499	428	346	294	246	202
	ON OFF	1352	1281	1218	1152	1076	1026	964	901	833	790
	OFF ON	1904	1932	1777	1727	1678	1630	1579	1523	1469	1426
	ON ON	2202	2137	2080	2033	1985	1947	1903	1859	1791	1721
VMES80 1005CX	OFF OFF*	789	719	637	545	458	378	324	273	222	179
	ON OFF	1567	1516	1466	1423	1388	1342	1293	1243	1195	1146
	OFF ON	1810	1764	1718	1682	1633	1596	1549	1510	1466	1425
	ON ON	2111	2085	2052	2027	1988	1968	1949	1917	1876	1840

¹ at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.

CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE

MODEL	DIP SWITCHES S1-1, S1-2, S1-3	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
VMES80 0403AX	OFF OFF OFF	658	603	550	495	441	388	331	286	238	198
	OFF ON ON	658	603	550	495	441	388	331	286	238	198
	ON OFF ON	658	603	550	495	441	388	331	286	238	198
	ON ON ON	658	603	550	495	441	388	331	286	238	198
	ON OFF OFF	750	703	651	600	553	504	456	409	362	322
	ON ON OFF	923	865	824	802	759	715	674	631	597	551
	OFF ON OFF	1138	1093	1057	1016	981	945	912	876	836	744
	OFF OFF ON*	1367	1321	1286	1255	1223	1190	1160	1133	1099	1068
VMES80 0603AX	OFF OFF OFF	681	617	566	511	458	405	358	311	265	215
	OFF ON ON	681	617	566	511	458	405	358	311	265	215
	ON OFF ON	681	617	566	511	458	405	358	311	265	215
	ON ON ON	681	617	566	511	458	405	358	311	265	215
	ON OFF OFF	1328	1274	1231	1192	1155	1114	1081	1047	1013	978
	ON ON OFF	964	906	856	810	788	745	702	662	622	588
	OFF ON OFF	1151	1091	1050	1007	964	926	885	850	813	800
	OFF OFF ON*	1389	1341	1295	1258	1221	1176	1140	1105	1076	1043
VMES80 0604BX	OFF OFF OFF	757	683	618	558	486	414	354	278	237	204
	OFF ON ON	757	683	618	558	486	414	354	278	237	204
	ON OFF ON	757	683	618	558	486	414	354	278	237	204
	ON ON ON	757	683	618	558	486	414	354	278	237	204
	ON OFF OFF	1320	1264	1217	1171	1131	1091	1049	1007	965	923
	ON ON OFF	1406	1358	1314	1267	1226	1189	1147	1108	1070	1031
	OFF ON OFF	1590	1542	1499	1454	1418	1390	1356	1321	1282	1245
	OFF OFF ON*	1804	1757	1712	1676	1637	1600	1566	1529	1501	1466

¹ at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- This chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on the rating plate.
- The dashed (---) areas indicate a temperature rise not recommended for this model.
- At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower

VMES80 COOLING AIRFLOW DATA (CONTD.)

MODEL	DIP SWITCHES S1-1, S1-2, S1-3	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
VMES80 0804BX	OFF OFF OFF	743	668	599	522	432	366	312	258	213	158
	OFF ON ON	743	668	599	522	432	366	312	258	213	158
	ON OFF ON	743	668	599	522	432	366	312	258	213	158
	ON ON ON	743	668	599	522	432	366	312	258	213	158
	ON OFF OFF	1408	1369	1319	1282	1242	1193	1150	1109	1069	1025
	ON ON OFF	1179	1123	1073	1025	972	924	869	818	782	719
	OFF ON OFF	1574	1521	1481	1439	1398	1374	1335	1295	1259	1219
	OFF OFF ON*	1810	1756	1711	1675	1637	1602	1569	1536	1500	1462
VMES80 0805CX	OFF OFF OFF	822	754	652	466	499	428	346	294	246	202
	OFF ON ON	822	754	652	466	499	428	346	294	246	202
	ON OFF ON	822	754	652	466	499	428	346	294	246	202
	ON ON ON	822	754	652	466	499	428	346	294	246	202
	ON OFF OFF	1352	1281	1218	1152	1076	1026	964	901	833	790
	ON ON OFF	1669	1595	1527	1463	1407	1363	1336	1289	1238	1190
	OFF ON OFF	1904	1932	1777	1727	1678	1630	1579	1523	1469	1426
	OFF OFF ON*	2202	2137	2080	2033	1985	1947	1903	1859	1791	1721
VMES80 1005CX	OFF OFF OFF	789	719	637	545	458	378	324	273	222	179
	OFF ON ON	789	719	637	545	458	378	324	273	222	179
	ON OFF ON	789	719	637	545	458	378	324	273	222	179
	ON ON ON	789	719	637	545	458	378	324	273	222	179
	ON OFF OFF	1567	1516	1466	1423	1388	1342	1293	1243	1195	1146
	ON ON OFF	1424	1378	1330	1274	1226	1172	1119	1071	1023	972
	OFF ON OFF	1810	1764	1718	1682	1633	1596	1549	1510	1466	1425
	OFF OFF ON*	2111	2085	2052	2027	1988	1968	1949	1917	1876	1840

¹ at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- This chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on the rating plate.
- The dashed (---) areas indicate a temperature rise not recommended for this model.
- At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower

CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE

MODEL	DIP SWITCHES S2-1, S2-2	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)															
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
		CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
VCES80 0603AX	OFF OFF	716	62	647	69	592	75	541	82	478	93	420	106	368	121	296	150
	ON OFF*	1054	42	1002	44	951	47	906	49	861	52	820	54	797	56	754	59
	ON ON	960	46	900	49	854	52	802	55	782	57	735	60	695	64	639	70
	OFF ON	1160	N/A	1102	N/A	1055	N/A	1017	N/A	970	N/A	930	N/A	891	N/A	847	N/A
VCES80 0804BX	OFF OFF	784	76	716	83	645	92	583	102	516	115	405	146	334	177	282	210
	ON OFF*	1295	46	1252	47	1203	49	1153	51	1114	53	1071	55	1022	58	981	60
	ON ON	1401	N/A	1366	N/A	1320	N/A	1278	N/A	1236	N/A	1213	N/A	1194	N/A	1153	N/A
	OFF ON**	1596	N/A	1553	N/A	1512	N/A	1491	N/A	1450	N/A	1411	N/A	1388	N/A	1347	N/A

¹ at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- This chart is for information only. For satisfactory operation, external static pressure must not exceed value shown on the rating plate.
- The dashed (---) areas indicate a temperature rise not recommended for this model.
- At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.

CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE

MODEL	DIP SWITCHES S2-3, S2-4	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
VCES80 0603AX	OFF OFF*	716	647	592	541	478	420	368	296	245	198
	ON OFF	1054	1002	951	906	861	820	797	754	704	660
	OFF ON	1160	1102	1055	1017	970	930	891	847	800	780
	ON ON	1411	1356	1313	1272	1235	1198	1162	1127	1094	1063
VCES80 0804BX	OFF OFF*	784	716	645	583	516	405	334	282	229	197
	ON OFF	1295	1252	1203	1153	1114	1071	1022	981	931	883
	OFF ON	1596	1553	1512	1491	1450	1411	1388	1347	1312	1272
	ON ON	1757	1713	1691	1664	1625	1588	1552	1522	1488	1447

¹ at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.

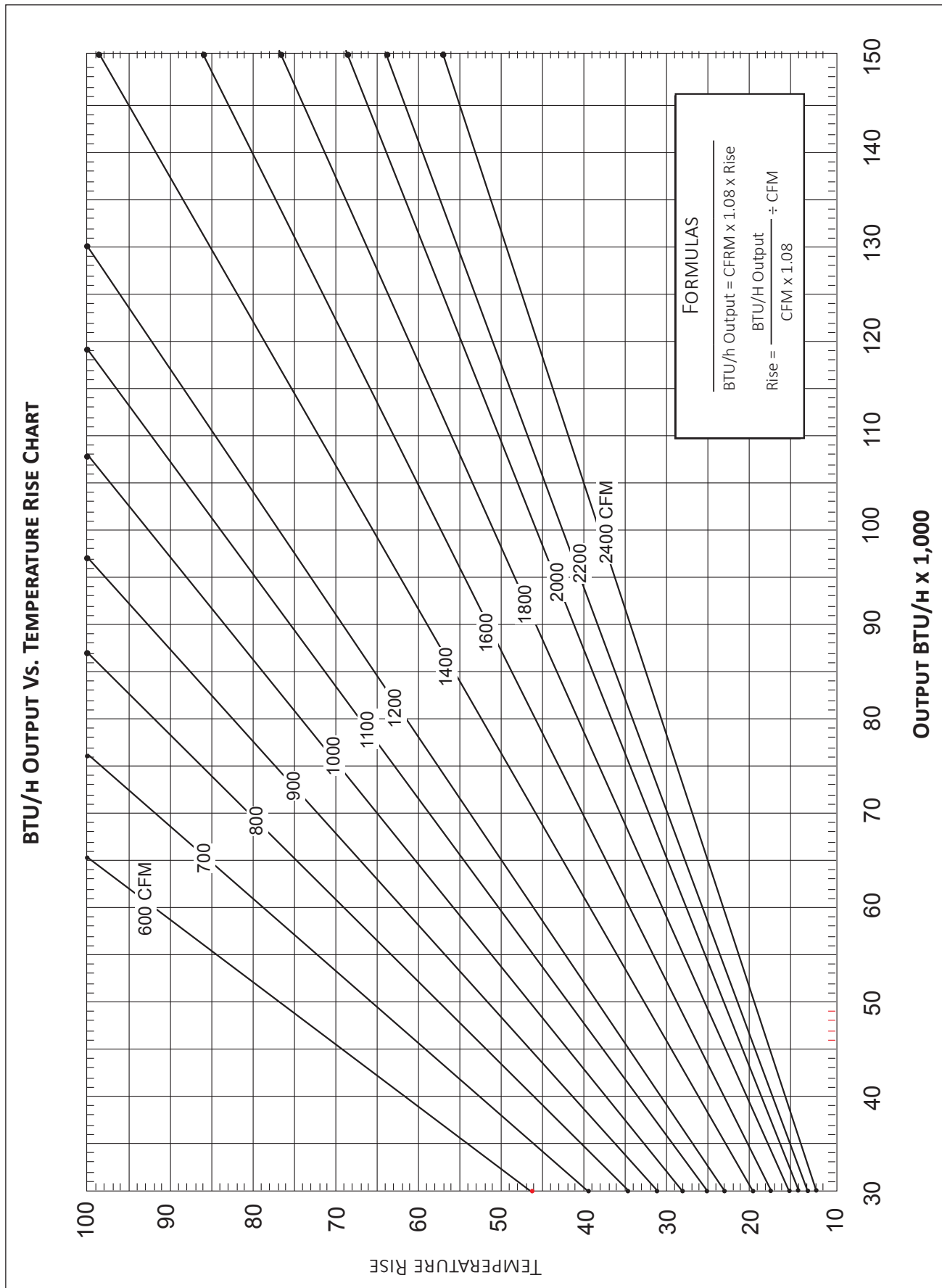
CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE

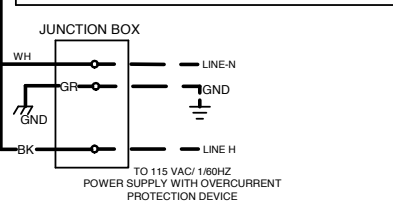
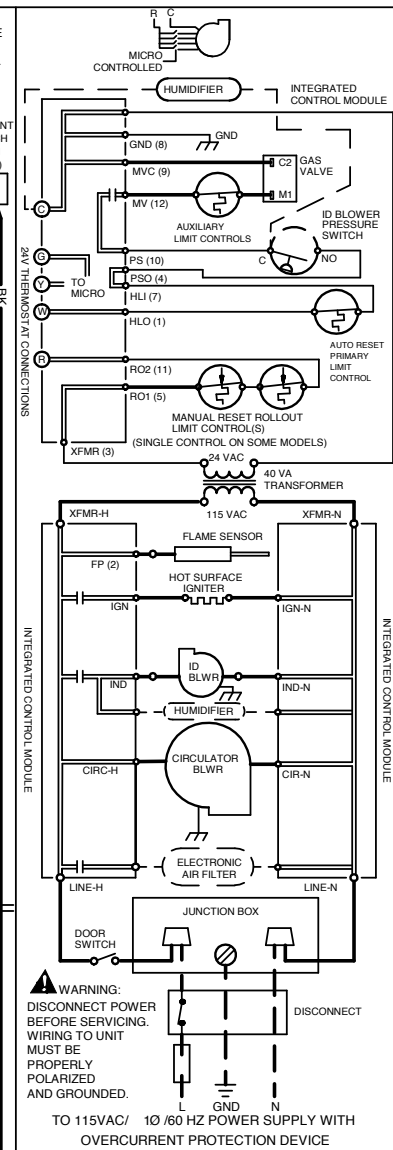
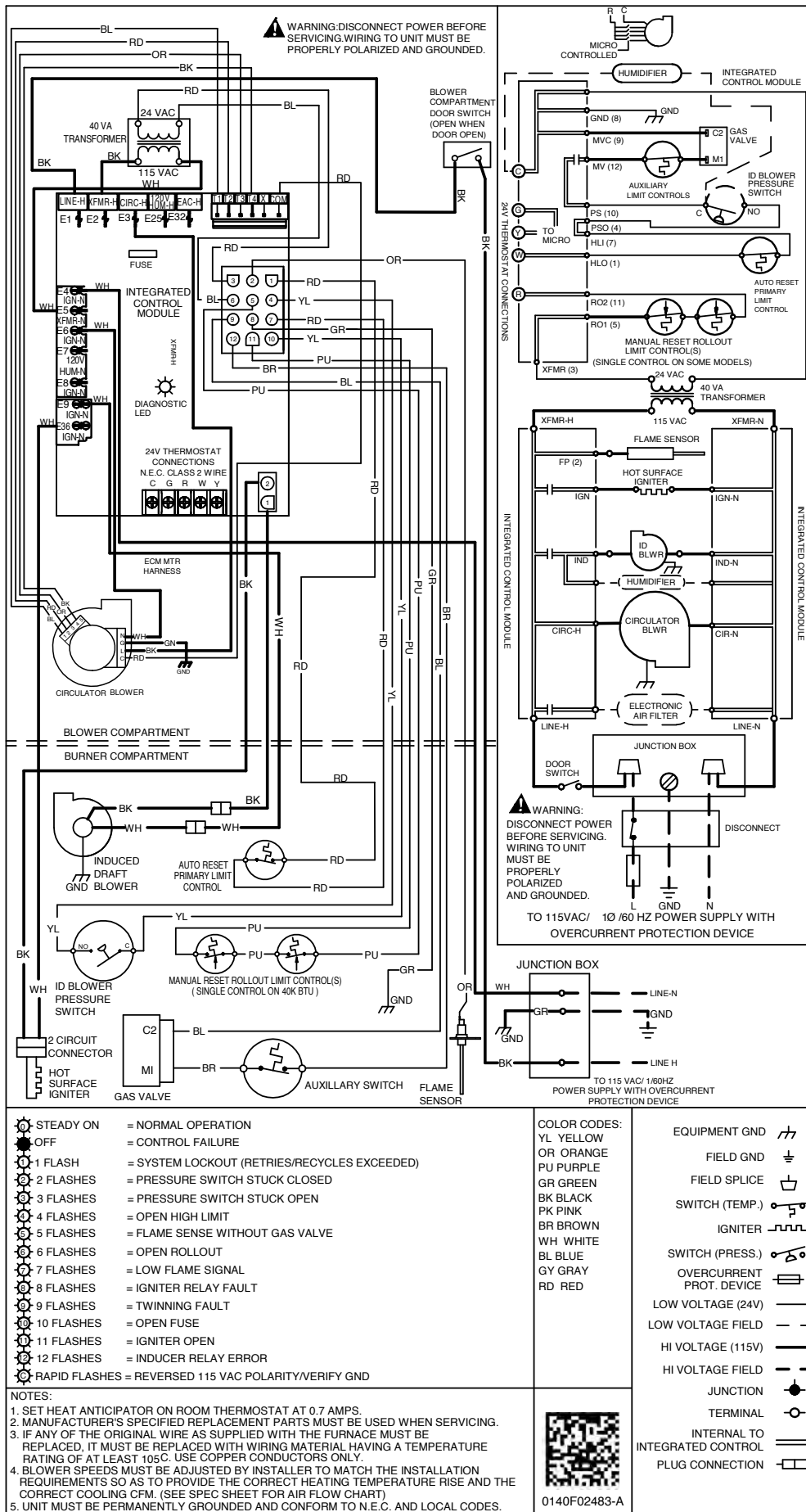
MODEL	DIP SWITCHES S1-1, S1-2, S1-3	EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
		CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM	CFM
VCES80 0603AX	OFF OFF OFF	716	647	592	541	478	420	368	296	245	198
	OFF ON ON	716	647	592	541	478	420	368	296	245	198
	ON OFF ON	716	647	592	541	478	420	368	296	245	198
	ON ON ON	716	647	592	541	478	420	368	296	245	198
	ON OFF OFF	1054	1002	951	906	861	820	797	754	704	660
	ON ON OFF	960	900	854	802	782	735	695	639	601	563
	OFF ON OFF	1160	1102	1055	1017	970	930	891	847	800	780
	OFF OFF ON*	1411	1356	1313	1272	1235	1198	1162	1127	1094	1063
VCES80 0804BX	OFF OFF OFF	784	716	645	583	516	405	334	282	229	197
	OFF ON ON	784	716	645	583	516	405	334	282	229	197
	ON OFF ON	784	716	645	583	516	405	334	282	229	197
	ON ON ON	784	716	645	583	516	405	334	282	229	197
	ON OFF OFF	1295	1252	1203	1153	1114	1071	1022	981	931	883
	ON ON OFF	1401	1366	1320	1278	1236	1194	1153	1112	1070	1025
	OFF ON OFF	1596	1553	1512	1491	1450	1411	1388	1347	1312	1272
	OFF OFF ON*	1757	1713	1691	1664	1625	1588	1552	1522	1488	1447

¹ at 0.5" ESP

Notes:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.





- NOTES:**
- SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.
 - MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
 - IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C. USE COPPER CONDUCTORS ONLY.
 - BLOWER SPEEDS MUST BE ADJUSTED BY INSTALLER TO MATCH THE INSTALLATION REQUIREMENTS SO AS TO PROVIDE THE CORRECT HEATING TEMPERATURE RISE AND THE CORRECT COOLING CFM. (SEE SPEC SHEET FOR AIR FLOW CHART)
 - UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.

- COLOR CODES:**
- YL YELLOW
 - OR ORANGE
 - PU PURPLE
 - GR GREEN
 - BK BLACK
 - PK PINK
 - BR BROWN
 - WH WHITE
 - BL BLUE
 - GY GRAY
 - RD RED

- EQUIPMENT GND**
- FIELD GND**
- FIELD SPICE**
- SWITCH (TEMP.)**
- IGNITER**
- SWITCH (PRESS.)**
- OVERCURRENT PROT. DEVICE**
- LOW VOLTAGE (24V)**
- LOW VOLTAGE FIELD**
- HI VOLTAGE (115V)**
- HI VOLTAGE FIELD**
- JUNCTION**
- TERMINAL**
- INTERNAL TO INTEGRATED CONTROL**
- PLUG CONNECTION**

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.

WARNING

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



MODEL	DESCRIPTION
LPT-03 ¹	LP Conversion Kit
HANG20	High-Altitude Natural Gas Kit (4500+ ft)
AFE18-60A	Fossil Fuel Kit
MVK-01 ²	Masonry Vent Kit
TK-400	Twinning Kit

¹ White-Rodgers and Honeywell valves

² Upflow applications only

MINIMUM FILTER SIZES

MODEL #	VMES80 0403AX	VMES80 0603AX	VMES80 0604BX	VMES80 0804BX	VMES80 0805CX	VMES80 1005CX
Filter Size (in ²)	(1) 16 x 25 (Side) or (1) 14 x 24 (Bottom)		(1) 16 x 25 (Side or Bottom) ¹		(2) 16 x 25 (Side) or (1) 20 x 25 (Bottom)	

MODEL #	VCES80 0603AX	VCES80 0804BX
Filter Size (in ²)	(2) 10 x 20 or (1) 14 x 25 (Top Return)	(2) 14xX 20 or (1) 16 x 25 (Top Return)

Note: Other size filters of equal or greater surface area may be used; filters may also be centrally located.

¹ Use 2- 16 x 25 filters on side returns or 20 x 25 filter on bottom return if furnace is connected to a cooling unit over 4 tons nominal capacity.