Goodman®
Air Conditioning & Heating

GMES96/GCES96

Heating Input: 40,000–120,000 BTU/h

Single-Stage, Multi-Speed ECM Gas Furnace Up to 96% AFUE

ENERGY STAR

Contents

Nomenclature....2
Product Specifications....3
Dimensions....5
Airflow Specifications....7
Wiring Diagram....15
Accessories....16

Standard Features

- Heavy-duty aluminized-steel tubular heat exchanger
- Stainless-steel secondary heat exchanger
- Single-stage gas valve
- Durable Silicon Nitride igniter
- Quiet single-speed induced draft blower
- Self-diagnostic control board with constant memory fault code history output to a LED
- All models comply with California 40 ng/J Low NOx emissions standard
- 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

- Designed for multi-position installation — GMES96: upflow, horizontal left or right GCES96: downflow, horizontal left or right
- Certified for direct vent (2-pipe) or non-direct vent (1-pipe)
- Easy-to-install top venting with optional side venting — GMES96/upflow models only
- Convenient left or right connection for gas and electrical service
- Cabinet air leakage (Q_{Leak}) ≤ 2%
- Heavy-gauge steel cabinet with durable finish
- Fully insulated heat exchanger and blower section
- Airtight solid bottom or side return with easy-cut tabs for effortless removal in bottom air-inlet applications

LIFETIME HEAT EXCHANGER LIMITED WARRANTY* | 10 YEAR UNIT REPLACEMENT LIMITED WARRANTY* | 10 YEAR PARTS LIMITED WARRANTY*

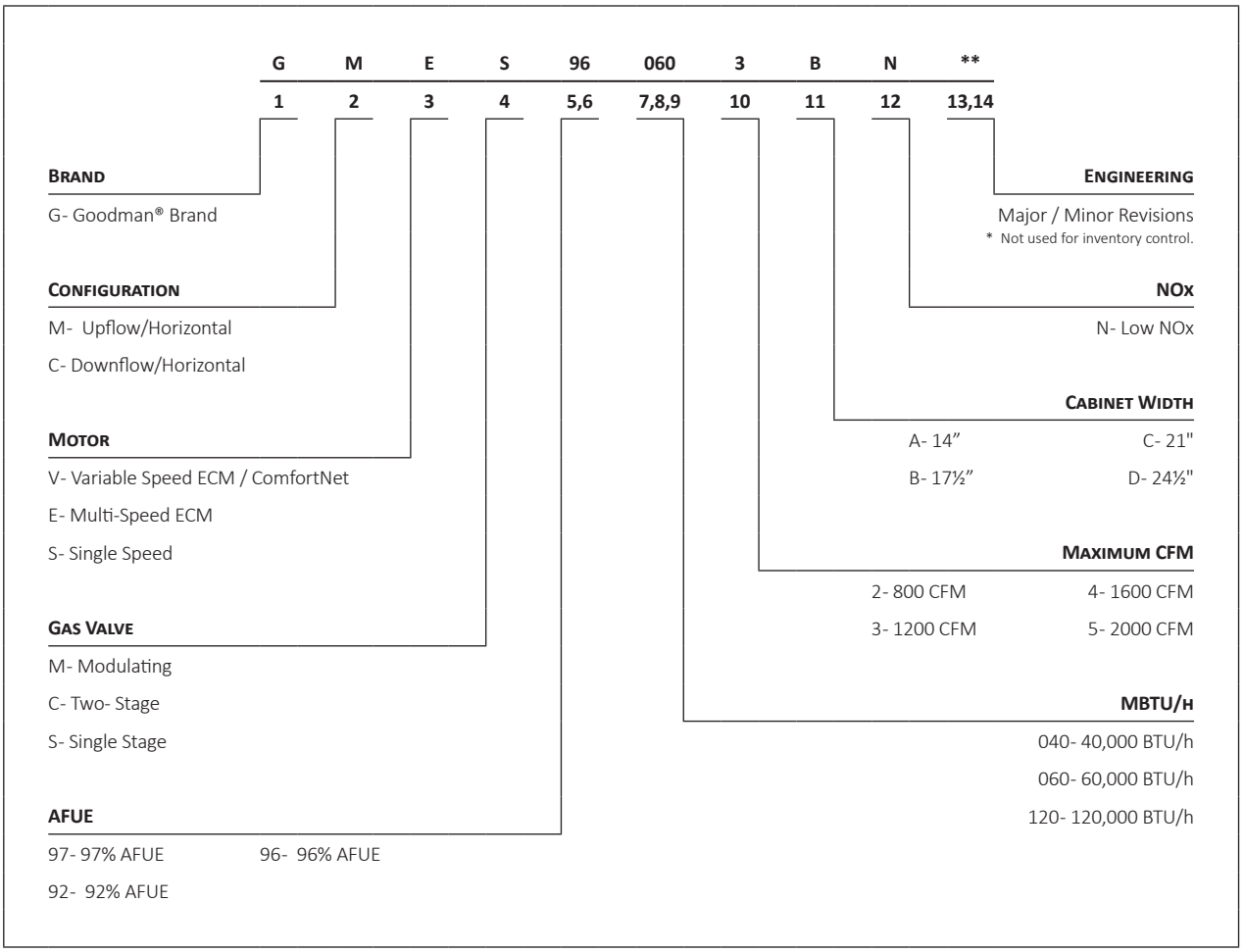
Intertek

AHRI CERTIFIED

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV GL = ISO 14001 =

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


G M E S 96 060 3 B N **
1 2 3 4 5,6 7,8,9 10 11 12 13,14
BRAND
G- Goodman® Brand
CONFIGURATION
M- Upflow/Horizontal
C- Downflow/Horizontal
MOTOR
V- Variable Speed ECM / ComfortNet
E- Multi-Speed ECM
S- Single Speed
GAS VALVE
M- Modulating
C- Two- Stage
S- Single Stage
AFUE
97- 97% AFUE
96- 96% AFUE
92- 92% AFUE
ENGINEERING
Major / Minor Revisions
* Not used for inventory control.
NOX
N- Low NOx
CABINET WIDTH
A- 14"
B- 17½"
C- 21"
D- 24½"
MAXIMUM CFM
2- 800 CFM
3- 1200 CFM
4- 1600 CFM
5- 2000 CFM
MBTU/H
040- 40,000 BTU/h
060- 60,000 BTU/h
120- 120,000 BTU/h

	GMES96 0403AN	GMES96 0603BN	GMES96 0803BN	GMES96 0804CN	GMES96 0805CN	GMES96 1005CN	GMES96 1205DN
Heating Data							
High Fire Input[1]	40,000	60,000	80,000	80,000	80,000	100,000	120,000
High Fire Output[1]	38,440	57,660	76,880	76,880	76,880	96,100	115,320
AFUE[2]	96	96	96	96	96	96	96
Temperature Rise Range (°F)	25-55	35-65	35-65	25-55	25-55	30-60	35-65
Vent Diameter[3]	2"- 3"	2"- 3"	2"- 3"	2"- 3"	2"- 3"	2"- 3"	3"
No. of Burners	2	3	4	4	4	5	6
Circulator Blower							
Available AC @ 0.5" ESP	1.5- 3	1.5- 3	1.5- 3	1.5- 4	3- 5	3- 5	3- 5
Size (D x W)	11" x 6"	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	1/2	1/2	1/2	3/4	1	1	1
Speed	5	5	5	5	5	5	5
Filter Size (in²) (Qty)	(1) 16xX 25 (side) or (1) 14 X 25 (bottom)	(1) 16xX 25 (side or bottom)	(1) 16xX 25 (side or bottom)	(1) 16xX 25 (side or bottom)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)	(1) 20 x 25 (bottom) or (2) 16 x 25 (side)
Electrical Data							
Min. Circuit Ampacity[4]	9.3	9.6	9.6	12.8	11.7	13.7	13.7
Max. Overcurrent Device (amps)[5]	15	15	15	15	15	15	15
Shipping Weight (lbs)	106	111	114	116	139	140	154

[1] Natural Gas BTU/h

[2] DOE AFUE based upon Isolated Combustion System (ICS)

[3] Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

[4] 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.

[5] 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.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24" front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

	GCES96 0403BN	GCES96 0603BN	GCES96 0804CN	GCES96 1005CN	GCES96 1205DN
HEATING DATA					
High Fire Input[1]	40,000	60,000	80,000	100,000	120,000
High Fire Output[1]	38,440	57,660	76,880	95,000	114,000
AFUE[2]	96	96	96	95	95
Temperature Rise Range (°F)	25-55	35-65	40-70	40-70	45-75
Vent Diameter[3]	2"- 3"	2"- 3"	2"- 3"	2"- 3"	3"
No. of Burners	2	3	4	5	6
CIRCULATOR BLOWER					
Available AC @ 0.5" ESP	1.5- 3	1.5- 3	2.5- 4	3- 5	3- 5
Size (D x W)	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 11"
Horsepower @ 1075 RPM	1/2	1/2	3/4	1	1
Speed	5	5	5	5	5
FILTER SIZE (IN²) (QTY)	(2) 10 x 20 or (1) 16 x 25 (top return)	(2) 10 x 20 or (1) 16 x 25 (top return)	(2) 10 x 20 or (1) 16 x 25 (top return)	(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)	(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)
ELECTRICAL DATA					
Min. Circuit Ampacity[4]	10.3	10.3	14.1	16.93	16.93
Max. Overcurrent Device (amps)[5]	15	15	15	20	20
SHIPPING WEIGHT (LBS)	113	116	141	144	156

[1] Natural Gas BTU/h

[2] DOE AFUE based upon Isolated Combustion System (ICS)

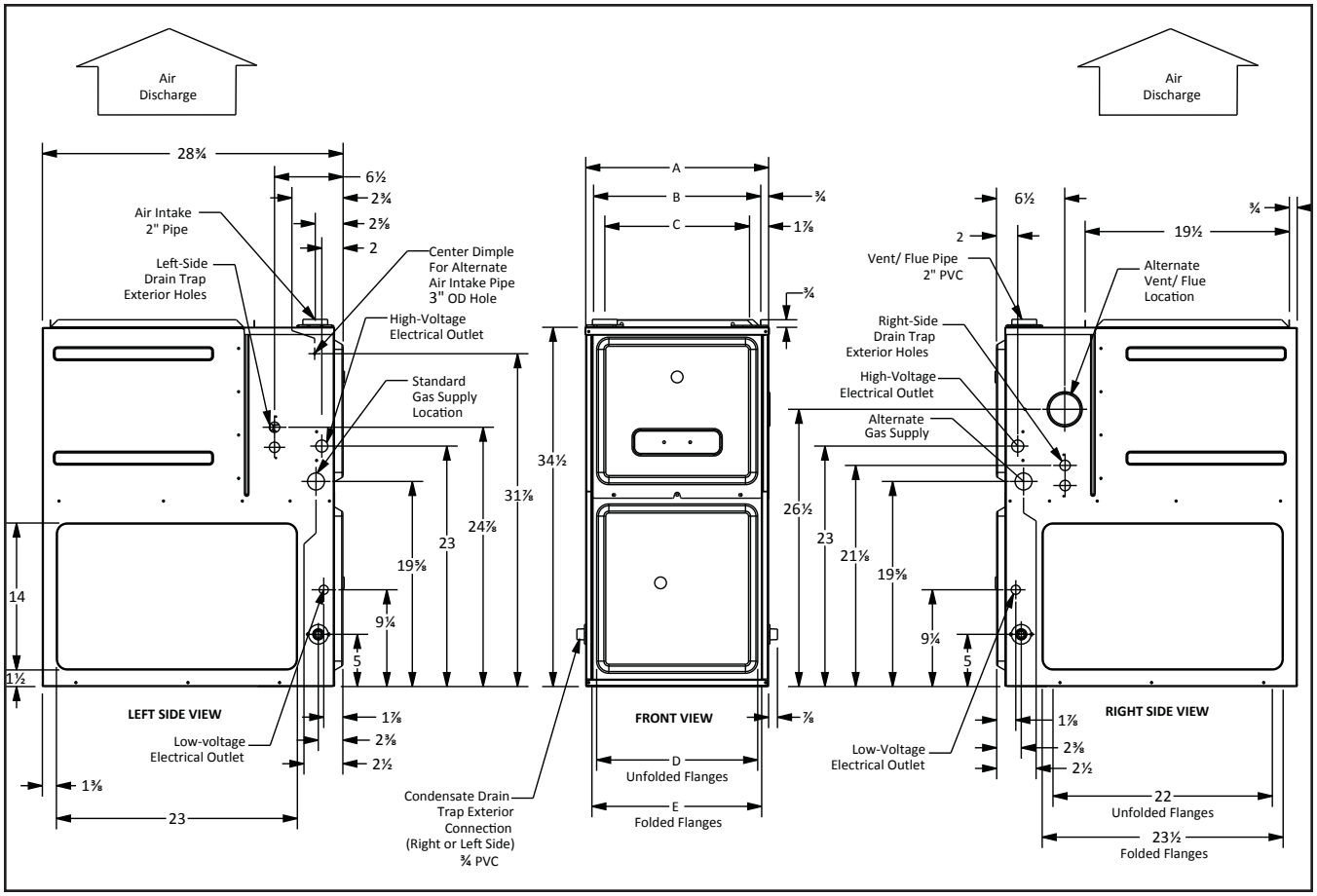
[3] Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

[4] 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.

[5] 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.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24" front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

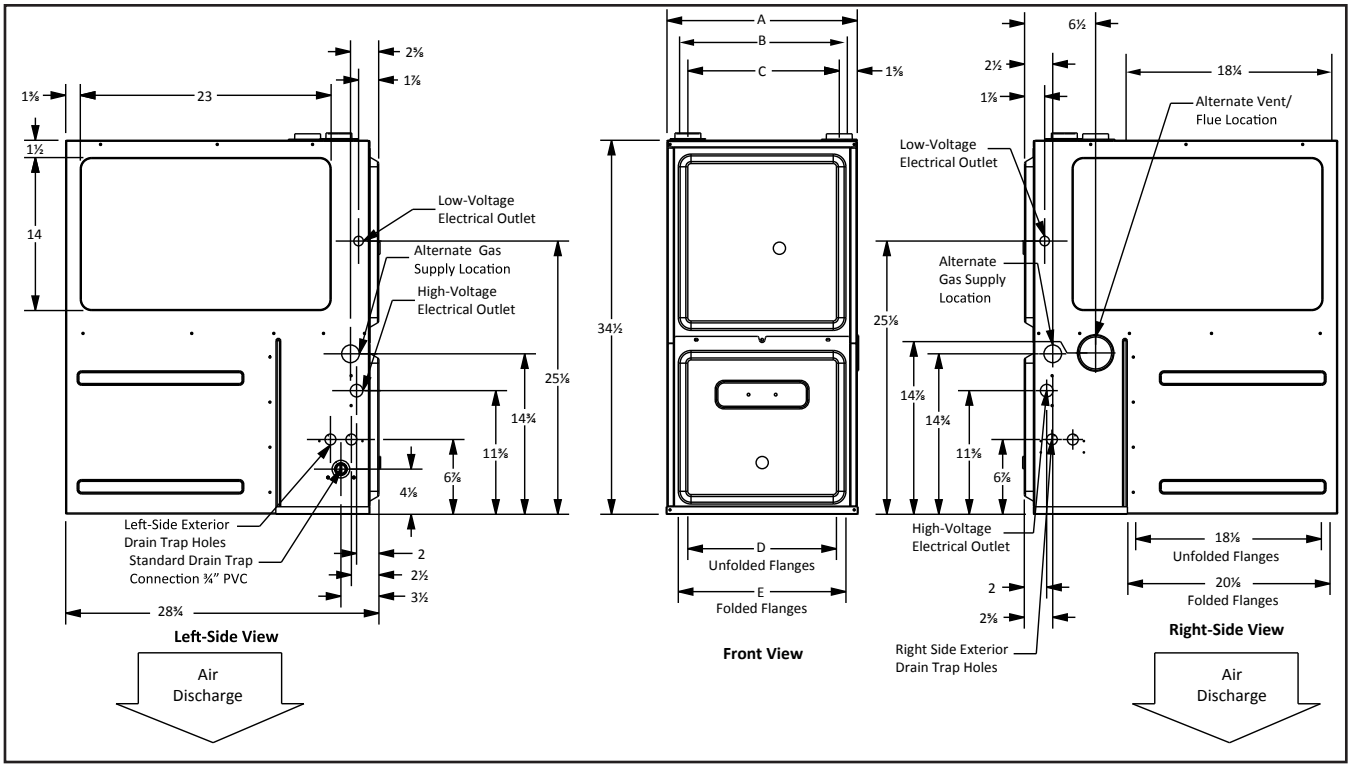


Model	Heating Capacity [1]		AFUE %	Tons A/C [2]	Dimensions			Ship Weight (lbs)
	Input	Output			W"	D"	H"	
GMES960403AN	40,000	38,400	96	3	14"	28⅞	34½	108
GMES960603BN	60,000	57,600	96	3	17½	28⅞	34½	118
GMES960803BN	80,000	76,800	96	3	17½	28⅞	34½	118
GMES960804CN	80,000	76,800	96	4	21"	28⅞	34½	141
GMES960805CN	80,000	76,800	96	5	21"	28⅞	34½	142
GMES961005CN	100,000	96,000	96	5	21"	28⅞	34½	144
GMES961205DN	120,000	115,200	96	5	24½	28⅞	34½	156

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Upflow	0"	0"	3"	C	0"	1"
Horizontal	6"	0"	3"	C	0"	6"

C = If placed on combustible floor, the floor MUST be wood ONLY.



Model	Heating Capacity [1]		AFUE %	Tons A/C [2]	Dimensions			Ship Weight (lbs)
	Input	Output			W"	D"	H"	
GCES960403BN	40,000	38,440	96	2	17½	28⅞	34½	113
GCES960603BNA	60,000	57,660	96	3	17½	28⅞	34½	116
GCES960804CN	80,000	76,880	96	4	21"	28⅞	34½	141
GCES961005CN	100,000	95,000	95	5	21"	28⅞	34½	144
GCES961205DN	120,000	114,000	95	5	24½	28⅞	34½	156

Minimum Clearances to Combustible Materials

Position	Sides	Rear	Front	Bottom	Flue	Top
Downflow	0"	0"	3"	NC	0"	1"
Horizontal	6"	0"	3"	C	0"	6"

C = If placed on combustible floor, the floor MUST be wood ONLY.

NC = For installation on non-combustible floors only. A combustible floor sub-base must be used for installations on combustible flooring.

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	CFM	CFM
GMES96 0403A	OFF OFF	715	50	666	53	609	N/A	558	N/A	500	N/A	438	386	333
	ON OFF*	1110	32	1081	33	1042	34	1003	35	965	37	933	893	856
	ON ON	913	39	871	41	833	43	807	44	765	46	722	675	629
	OFF ON**	1191	N/A	1168	N/A	1135	N/A	1112	N/A	1081	N/A	1055	1024	998
GMES96 0603B	OFF OFF	785	N/A	717	N/A	648	N/A	587	N/A	520	N/A	457	400	327
	ON OFF*	1240	43	1194	45	1153	46	1104	48	1069	50	1019	971	929
	ON ON	972	55	922	58	864	62	811	N/A	767	N/A	718	651	597
	OFF ON**	1155	N/A	1105	N/A	1056	N/A	1006	N/A	958	N/A	908	857	808
GMES96 0803B	OFF OFF	747	N/A	676	N/A	602	N/A	529	N/A	453	N/A	386	329	281
	ON OFF*	1206	57	1157	59	1111	61	1059	62	1009	65	966	913	863
	ON ON	985	N/A	931	N/A	875	N/A	823	N/A	782	N/A	723	673	606
	OFF ON**	1149	N/A	1095	N/A	1051	N/A	1003	N/A	951	N/A	900	845	812
GMES96 0804C	OFF OFF	1010	N/A	935	N/A	861	N/A	785	N/A	721	N/A	631	553	483
	ON OFF*	1621	44	1570	45	1521	47	1467	48	1414	50	1378	1327	1274
	ON ON	1439	49	1400	51	1347	53	1291	55	1234	N/A	1182	1125	1065
	OFF ON**	1826	N/A	1775	N/A	1726	N/A	1684	N/A	1634	N/A	1588	1538	1492
GMES96 0805C	OFF OFF	1012	N/A	937	N/A	861	N/A	801	N/A	722	N/A	630	552	485
	ON OFF*	1836	39	1787	40	1746	41	1699	42	1653	43	1607	1561	1514
	ON ON	1431	50	1389	51	1335	53	1283	55	1226	N/A	1176	1117	1055
	OFF ON**	1836	39	1787	40	1746	41	1699	42	1653	43	1607	1561	1514
GMES96 1005C	OFF OFF	1012	N/A	940	N/A	863	N/A	800	N/A	715	N/A	627	561	496
	ON OFF*	1826	49	1783	50	1730	51	1685	53	1642	54	1596	1548	1504
	ON ON	1465	N/A	1402	N/A	1360	N/A	1306	N/A	1250	N/A	1197	1138	1073
	OFF ON	1602	55	1556	57	1510	59	1460	N/A	1411	N/A	1372	1315	1261
GMES96 1205D	OFF OFF	1121	N/A	1018	N/A	933	N/A	839	N/A	762	N/A	671	592	519
	ON OFF*	1969	54	1913	56	1862	57	1807	59	1756	61	1705	1647	1599
	ON ON	1688	63	1626	N/A	1564	N/A	1500	N/A	1448	N/A	1393	1334	1267
	OFF ON	1865	57	1812	59	1755	61	1692	63	1638	65	1587	1527	1476

[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.

Minimum Filter Sizes

	GMES96 0403ANA	GMES96 0603BNA	GMES96 0803BNA	GMES96 0804CNA	GMES96 0805CNA	GMES96 1005CNA	GMES96 1205DNA
Filter Size (in^2) (Qty)	(1) 16 x 25 (side) or (1) 14 x 25 bottom)	(1) 16 x 25 (side or bottom)			(1) 20 x 25 (bottom) or (2) 16 x 25 (side)		

Note: Other size filters of equal or greater dimensions may be used. Filters may also be centrally located.

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
GMES96 0403A	OFF OFF*	715	666	609	558	500	438	386	333	276	220
	ON OFF	1110	1081	1042	1003	965	933	893	856	820	803
	OFF ON	1191	1168	1135	1112	1081	1055	1024	998	978	N/A
	ON ON	1344	1312	1278	1247	1215	1178	1143	1114	1081	1049
GMES96 0603B	OFF OFF*	785	717	648	587	520	457	400	327	269	206
	ON OFF	1240	1194	1153	1104	1069	1019	971	929	893	N/A
	OFF ON	1155	1105	1056	1006	958	908	857	808	772	723
	ON ON	1384	1338	1300	1257	1215	1169	1125	1080	1040	994
GMES96 0803B	OFF OFF*	747	676	602	529	453	386	329	281	186	N/A
	ON OFF	1206	1157	1111	1059	1009	966	913	863	834	784
	OFF ON	1149	1095	1051	1003	951	900	845	812	762	707
	ON ON	1414	1380	1333	1305	1260	1223	1180	1137	1091	1047
GMES96 0804C	OFF OFF*	1010	935	861	785	721	631	553	483	423	350
	ON OFF	1621	1570	1521	1467	1414	1378	1327	1274	1221	1167
	OFF ON	1826	1775	1726	1684	1634	1588	1538	1492	1448	1398
	ON ON	1843	1798	1753	1710	1666	1618	1574	1526	1481	1432
GMES96 0805C	OFF OFF*	1012	937	861	801	722	630	552	485	420	353
	ON OFF	1836	1787	1746	1699	1653	1607	1561	1514	1471	1419
	OFF ON	1836	1787	1746	1699	1653	1607	1561	1514	1471	1419
	ON ON	2215	2171	2137	2098	2060	2022	1986	1948	1908	1869
GMES96 1005C	OFF OFF*	1012	940	863	800	715	627	561	496	437	374
	ON OFF	1826	1783	1730	1685	1642	1596	1548	1504	1455	1406
	OFF ON	1602	1556	1510	1460	1411	1372	1315	1261	1207	1156
	ON ON	2225	2180	2141	2105	2070	2033	1996	1957	1923	1883
GMES96 1205D	OFF OFF*	1121	1018	933	839	762	671	592	519	447	371
	ON OFF	1969	1913	1862	1807	1756	1705	1647	1599	1544	1481
	OFF ON	1865	1812	1755	1692	1638	1587	1527	1476	1411	1351
	ON ON	2268	2214	2173	2117	2068	2022	1978	1924	1874	1832

[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
GMES96 0403A	OFF OFF OFF	715	666	609	558	500	438	386	333	276	220
	OFF ON ON	715	666	609	558	500	438	386	333	276	220
	ON OFF ON	715	666	609	558	500	438	386	333	276	220
	ON ON ON	715	666	609	558	500	438	386	333	276	220
	ON OFF OFF	1110	1081	1042	1003	965	933	893	856	820	803
	ON ON OFF	913	871	833	807	765	722	675	629	574	535
	OFF ON OFF	1191	1168	1135	1112	1081	1055	1024	998	978	N/A
	OFF OFF ON*	1344	1312	1278	1247	1215	1178	1143	1114	1081	1049
GMES96 0603B	OFF OFF OFF	785	717	648	587	520	457	400	327	269	206
	OFF ON ON	785	717	648	587	520	457	400	327	269	206
	ON OFF ON	785	717	648	587	520	457	400	327	269	206
	ON ON ON	785	717	648	587	520	457	400	327	269	206
	ON OFF OFF	1240	1194	1153	1104	1069	1019	971	929	893	N/A
	ON ON OFF	972	922	864	811	767	718	651	597	556	511
	OFF ON OFF	1155	1105	1056	1006	958	908	857	808	772	723
	OFF OFF ON*	1384	1338	1300	1257	1215	1169	1125	1080	1040	994
GMES96 0803B	OFF OFF OFF	747	676	602	529	453	386	329	281	186	N/A
	OFF ON ON	747	676	602	529	453	386	329	281	186	N/A
	ON OFF ON	747	676	602	529	453	386	329	281	186	N/A
	ON ON ON	747	676	602	529	453	386	329	281	186	N/A
	ON OFF OFF	1206	1157	1111	1059	1009	966	913	863	834	784
	ON ON OFF	985	931	875	823	782	723	673	606	548	508
	OFF ON OFF	1149	1095	1051	1003	951	900	845	812	762	707
	OFF OFF ON*	1414	1380	1333	1305	1260	1223	1180	1137	1091	1047
GMES96 0804C	OFF OFF OFF	1010	935	861	785	721	631	553	483	423	350
	OFF ON ON	1010	935	861	785	721	631	553	483	423	350
	ON OFF ON	1010	935	861	785	721	631	553	483	423	350
	ON ON ON	1010	935	861	785	721	631	553	483	423	350
	ON OFF OFF	1621	1570	1521	1467	1414	1378	1327	1274	1221	1167
	ON ON OFF	1439	1400	1347	1291	1234	1182	1125	1065	1000	930
	OFF ON OFF	1826	1775	1726	1684	1634	1588	1538	1492	1448	1398
	OFF OFF ON*	1843	1798	1753	1710	1666	1618	1574	1526	1481	1432
GMES96 0805C	OFF OFF OFF	1012	937	861	801	722	630	552	485	420	353
	OFF ON ON	1012	937	861	801	722	630	552	485	420	353
	ON OFF ON	1012	937	861	801	722	630	552	485	420	353
	ON ON ON	1012	937	861	801	722	630	552	485	420	353
	ON OFF OFF	1836	1787	1746	1699	1653	1607	1561	1514	1471	1419
	ON ON OFF	1431	1389	1335	1283	1226	1176	1117	1055	993	924
	OFF ON OFF	1836	1787	1746	1699	1653	1607	1561	1514	1471	1419
	OFF OFF ON*	2215	2171	2137	2098	2060	2022	1986	1948	1908	1869

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
GMES96 1005C	OFF OFF OFF	1012	940	863	800	715	627	561	496	437	374
	OFF ON ON	1012	940	863	800	715	627	561	496	437	374
	ON OFF ON	1012	940	863	800	715	627	561	496	437	374
	ON ON ON	1012	940	863	800	715	627	561	496	437	374
	ON OFF OFF	1826	1783	1730	1685	1642	1596	1548	1504	1455	1406
	ON ON OFF	1465	1402	1360	1306	1250	1197	1138	1073	1016	947
	OFF ON OFF	1602	1556	1510	1460	1411	1372	1315	1261	1207	1156
	OFF OFF ON*	2225	2180	2141	2105	2070	2033	1996	1957	1923	1883
GMES96 1205D	OFF OFF OFF	1121	1018	933	839	762	671	592	519	447	371
	OFF ON ON	1121	1018	933	839	762	671	592	519	447	371
	ON OFF ON	1121	1018	933	839	762	671	592	519	447	371
	ON ON ON	1121	1018	933	839	762	671	592	519	447	371
	ON OFF OFF	1969	1913	1862	1807	1756	1705	1647	1599	1544	1481
	ON ON OFF	1688	1626	1564	1500	1448	1393	1334	1267	1199	1125
	OFF ON OFF	1865	1812	1755	1692	1638	1587	1527	1476	1411	1351
	OFF OFF ON*	2268	2214	2173	2117	2068	2022	1978	1924	1874	1832

[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	CFM	CFM
GCES96 0403B	OFF OFF	629	N/A	566	N/A	509	N/A	450	N/A	388	N/A	327	269	228
	ON OFF*	949	37	899	40	853	42	809	44	786	45	742	697	652
	ON ON	733	49	672	53	613	N/A	563	N/A	512	N/A	454	404	349
	OFF ON**	1126	N/A	1086	N/A	1044	N/A	1006	N/A	968	N/A	925	885	849
GCES96 0603B	OFF OFF	754	N/A	684	N/A	615	N/A	542	N/A	471	N/A	411	343	276
	ON OFF*	1332	40	1291	41	1252	43	1218	44	1173	45	1134	1088	1049
	ON ON	972	55	922	58	864	62	811	N/A	767	N/A	718	651	597
	OFF ON	1155	46	1105	48	1056	51	1006	53	958	56	908	857	808
GCES96 0804C	OFF OFF	760	N/A	686	N/A	613	N/A	542	N/A	459	N/A	376	310	266
	ON OFF*	1390	51	1342	53	1292	55	1254	57	1201	59	1157	1112	1072
	ON ON	1397	51	1361	52	1318	54	1266	56	1224	58	1181	1139	1095
	OFF ON**	1581	N/A	1537	N/A	1492	N/A	1452	N/A	1413	N/A	1387	1347	1305
GCES96 1005C	OFF OFF	1211	N/A	1129	N/A	1045	N/A	964	N/A	890	N/A	812	764	702
	ON OFF*	1650	54	1592	56	1530	58	1478	60	1428	62	1389	1327	1270
	ON ON	1457	61	1394	64	1338	66	1294	69	1236	N/A	1171	1110	1048
	OFF ON**	1860	N/A	1810	N/A	1755	N/A	1702	N/A	1656	N/A	1611	1553	1511
GCES96 1205D	OFF OFF	1296	N/A	1190	N/A	1076	N/A	960	N/A	839	N/A	760	653	559
	ON OFF*	1917	56	1843	58	1759	61	1686	63	1600	67	1513	1420	1348
	ON ON	1611	66	1521	70	1433	74	1347	N/A	1246	N/A	1145	1044	953
	OFF ON**	2011	N/A	1936	N/A	1858	N/A	1779	N/A	1692	N/A	1610	1531	1442

[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.

Minimum Filter Sizes

	GCES96 0403BNA	GCES96 0603BNA	GCES96 0804CNA	GCES96 1005CNA	GCES96 1205DNA
Filter Size (in²) (Qty)	(2) 10 x 20 or (1) 16 x 25 (top return)			(1) 14 x 20 (bottom) or (1) 20 x 25 (top return)	

Note: Other size filters of equal or greater dimensions may be used. Filters may also be centrally located.

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
GCES96 0403B	OFF OFF*	629	566	509	450	388	327	269	228	195	153
	ON OFF	949	899	853	809	786	742	697	652	609	575
	OFF ON	1126	1086	1044	1006	968	925	885	849	827	792
	ON ON	1359	1321	1284	1251	1218	1181	1147	1114	1080	1045
GCES96 0603B	OFF OFF*	754	684	615	542	471	411	343	276	214	N/A
	ON OFF	1332	1291	1252	1218	1173	1134	1088	1049	1013	N/A
	OFF ON	1155	1105	1056	1006	958	908	857	8080	772	723
	ON ON	1384	1338	1300	1257	1215	1189	1169	1125	1080	1040
GCES96 0804C	OFF OFF*	760	686	613	542	459	376	310	266	224	190
	ON OFF	1390	1342	1292	1254	1201	1157	1112	1072	1022	985
	OFF ON	1581	1537	1492	1452	1413	1387	1347	1305	1267	1225
	ON ON	1800	1758	1716	1678	1636	1601	1565	1529	1491	1457
GCES96 1005C	OFF OFF*	1211	1129	1045	964	890	812	764	702	639	583
	ON OFF	1650	1592	1530	1478	1428	1389	1327	1270	1213	1159
	OFF ON	1860	1810	1755	1702	1656	1611	1553	1511	1454	1405
	ON ON	2230	2176	2125	2086	2038	1999	1958	1917	1880	1829
GCES96 1205D	OFF OFF*	1296	1190	1076	960	839	760	653	559	452	351
	ON OFF	1917	1843	1759	1686	1600	1513	1420	1348	1258	1173
	OFF ON	2011	1936	1858	1779	1692	1610	1531	1442	1365	1266
	ON ON	2317	2257	2196	2122	2061	1990	1914	1762	1523	1232

[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
GCES96 0403B	OFF OFF OFF	629	566	509	450	388	327	269	228	195	153
	OFF ON ON	629	566	509	450	388	327	269	228	195	153
	ON OFF ON	629	566	509	450	388	327	269	228	195	153
	ON ON ON	629	566	509	450	388	327	269	228	195	153
	ON OFF OFF	949	899	853	809	786	742	697	652	609	575
	ON ON OFF	733	672	613	563	512	454	404	349	306	261
	OFF ON OFF	1126	1086	1044	1006	968	925	885	849	827	792
	OFF OFF ON*	1359	1321	1284	1251	1218	1181	1147	1114	1080	1045
GCES96 0603B	OFF OFF OFF	754	684	615	542	471	411	343	276	214	N/A
	OFF ON ON	754	684	615	542	471	411	343	276	214	N/A
	ON OFF ON	754	684	615	542	471	411	343	276	214	N/A
	ON ON ON	754	684	615	542	471	411	343	276	214	N/A
	ON OFF OFF	1332	1291	1252	1218	1173	1134	1088	1049	1013	N/A
	ON ON OFF	972	922	864	811	767	718	651	597	556	511
	OFF ON OFF	1155	1105	1056	1006	958	908	857	808	772	723
	OFF OFF ON*	1384	1338	1300	1257	1215	1189	1169	1125	1080	1040
GCES96 0804C	OFF OFF OFF	760	686	613	542	459	376	310	266	224	190
	OFF ON ON	760	686	613	542	459	376	310	266	224	190
	ON OFF ON	760	686	613	542	459	376	310	266	224	190
	ON ON ON	760	686	613	542	459	376	310	266	224	190
	ON OFF OFF	1390	1342	1292	1254	1201	1157	1112	1072	1022	985
	ON ON OFF	1397	1361	1318	1266	1224	1181	1139	1095	1050	1003
	OFF ON OFF	1581	1537	1492	1452	1413	1387	1347	1305	1267	1225
	OFF OFF ON*	1800	1758	1716	1678	1636	1601	1565	1529	1491	1457
GCES96 1005C	OFF OFF OFF	1211	1129	1045	964	890	812	764	702	639	583
	OFF ON ON	1211	1129	1045	964	890	812	764	702	639	583
	ON OFF ON	1211	1129	1045	964	890	812	764	702	639	583
	ON ON ON	1211	1129	1045	964	890	812	764	702	639	583
	ON OFF OFF	1650	1592	1530	1478	1428	1389	1327	1270	1213	1159
	ON ON OFF	1457	1394	1338	1294	1236	1171	1110	1048	986	919
	OFF ON OFF	1860	1810	1755	1702	1656	1611	1553	1511	1454	1405
	OFF OFF ON*	2230	2176	2125	2086	2038	1999	1958	1917	1880	1829
GCES96 1205D	OFF OFF OFF	1296	1190	1076	960	839	760	653	559	452	351
	OFF ON ON	1296	1190	1076	960	839	760	653	559	452	351
	ON OFF ON	1296	1190	1076	960	839	760	653	559	452	351
	ON ON ON	1296	1190	1076	960	839	760	653	559	452	351
	ON OFF OFF	1917	1843	1759	1686	1600	1513	1420	1348	1258	1173
	ON ON OFF	1611	1521	1433	1347	1246	1145	1044	953	876	790
	OFF ON OFF	2011	1936	1858	1779	1692	1610	1531	1442	1365	1266
	OFF OFF ON*	2317	2257	2196	2122	2061	1990	1914	1762	1523	1232

[1] at 0.5" ESP

Notes:

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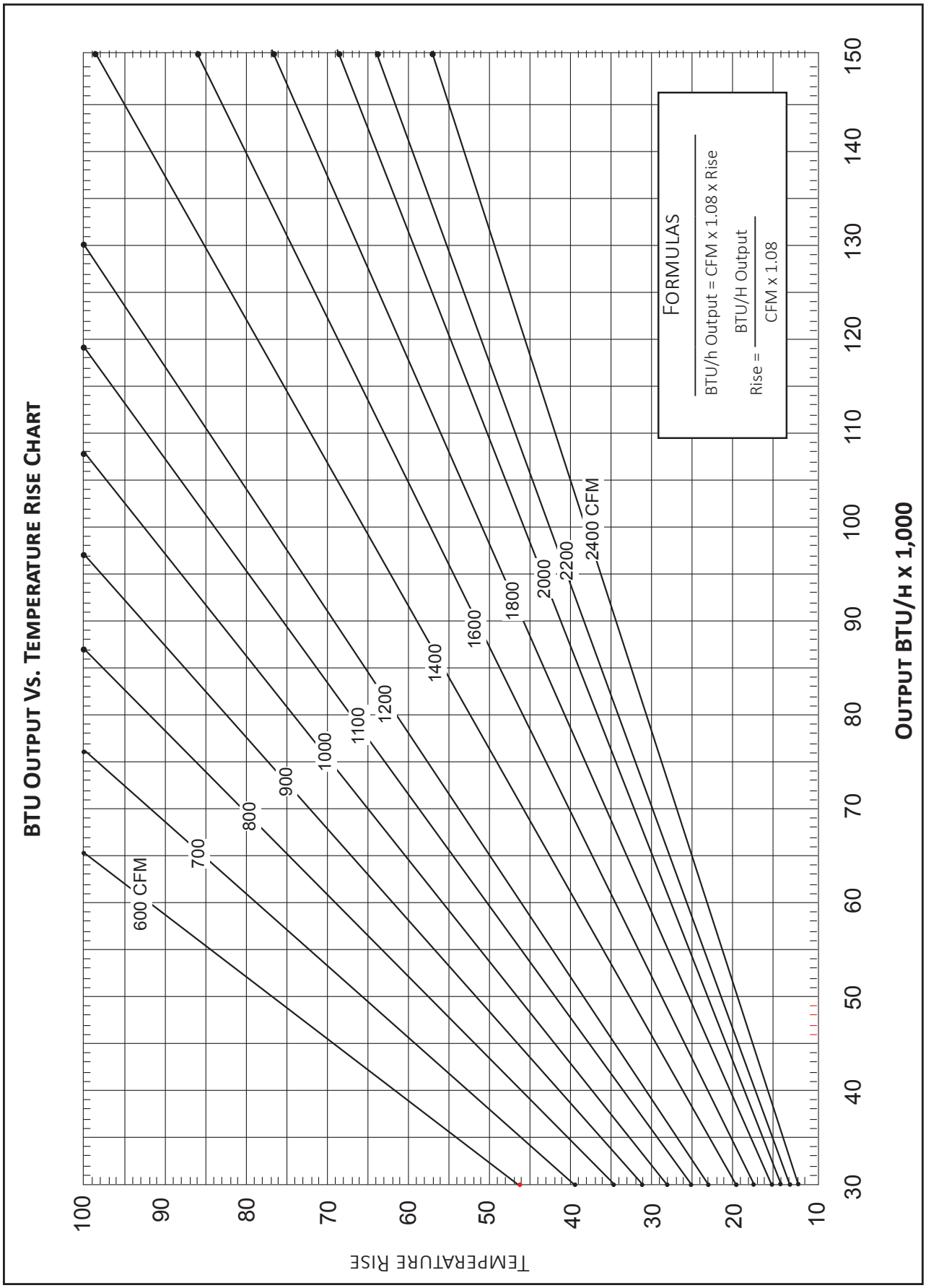
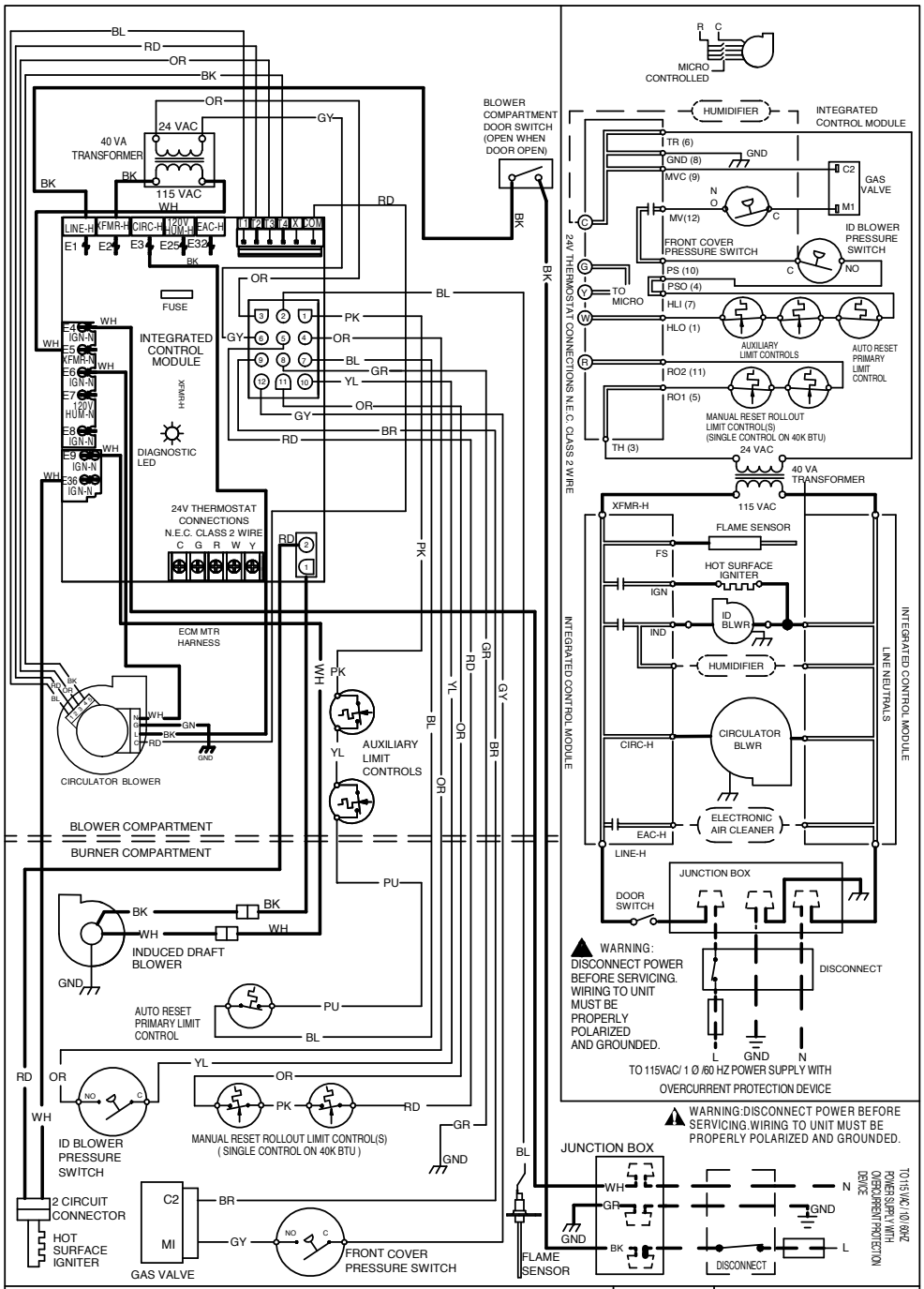

BTU Output Vs. Temperature Rise Chart
Temperature Rise
Output BTU/h x 1,000
600 CFM
700
800
900
1000
1100
1200
1400
1600
1800
2000
2200
2400 CFM
Formulas
BTU/h Output = CFM x 1.08 x Rise
Rise = BTU/H Output / CFM x 1.08
100
90
80
70
60
50
40
30
20
10
30
40
50
60
70
80
90
100
110
120
130
140
150



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	GMES96 0403ANA	GMES96 0603BNA	GMES96 0803BNA	GMES96 0804CNA	GMES96 0805CNA	GMES96 1005CNA	GMES96 1205DNA
CVENT-2	Concentric Vent Kit (2")	√	√	√	√	√	√	---
CVENT-3	Concentric Vent Kit (3")	√	√	√	√	√	√	√
CFSB17	Downflow Sub-Base 17.5"	---	---	---	---	---	---	---
CFSB21	Downflow Sub-Base 21"	---	---	---	---	---	---	---
CFSB24	Downflow Sub-Base 24"	---	---	---	---	---	---	---
RF000142	Drain Kit-Horizontal Left Vertical Flue	√	√	√	√	√	√	√
EFR02	External Filter Rack with 16"x25" Permanent Filter	√	√	√	√	---	---	---
0170K00000S	Flush Mount Vent Kit- 3" or 2"	√	√	√	√	√	√	√
0170K00001S	Flush Mount Vent Kit- 2"	√	√	√	√	√	√	---
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√	√	√
HASFK	High-Altitude Natural Gas Kit	TBD	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4
HASFK	High-Altitude LP Gas Kit	TBD	HASFK-5,6	HASFK-5,6	N/A	N/A	N/A	N/A
LPLP03	Low LP Gas Pressure Switch	√	√	√	√	√	√	√
LPM-07	LP Conversion Kits	√	√	√	√	√	√	√
TK-400	Twinning Kit	√	√	√	√	√	√	√

MODEL	DESCRIPTION	GCES96 0403BNA	GCES96 0603BNA	GCES96 0804CNA	GCES96 1005CNA	GCES96 1205DNA
CVENT-2	Concentric Vent Kit (2")	√	√	√	√	---
CVENT-3	Concentric Vent Kit (3")	√	√	√	√	√
CFSB17	Downflow Sub-Base 17.5"	√	√	---	---	---
CFSB21	Downflow Sub-Base 21"	---	---	√	√	---
CFSB24	Downflow Sub-Base 24"	---	---	---	---	√
RF000142	Drain Kit-Horizontal Left Vertical Flue	---	---	---	---	---
EFR02	External Filter Rack with 16"x25" Permanent Filter	√	√	√	---	---
0170K00000S	Flush Mount Vent Kit- 3" or 2"	√	√	√	√	√
0170K00001S	Flush Mount Vent Kit- 2"	√	√	√	√	---
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√
HASFK	High-Altitude Natural Gas Kit	HASFK-4	HASFK-4	HASFK-4	HASFK-4	HASFK-4
HASFK	High-Altitude LP Gas Kit	HASFK-5	HASFK-5	HASFK-5	HASFK-4	HASFK-4
LPLP03	Low LP Gas Pressure Switch	√	√	√	√	√
LPM-07	LP Conversion Kits	√	√	√	√	√
TK-400	Twinning Kit	√	√	√	√	√

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