



GE APPLIANCES

Product Specifications

NF96(U,D)*S**R**
96% Single Stage Constant
Torque Motor Gas Furnace



**READ CAREFULLY.
KEEP THESE INSTRUCTIONS.**

NF96(U,D)S

PRODUCT SPECIFICATIONS

CONFIGURATIONS

- Upflow / Horizontal
- Downflow

HEAT EXCHANGER DESIGN

- Aluminized steel primary heat exchanger with crimped non-welded construction
- AL 29-4C Stainless steel secondary heat exchanger

BURNER

- Aluminized steel inshot burners for smooth ignition

CABINET DESIGN

- Compact 33" height
- Standardized widths for easy coil fit

AIR DELIVERY SYSTEM

- Multi-speed high efficiency (constant torque) blower motor
- Easily removable slide out blower design
- Enhanced cooling SEER ratings when applied with properly matched cooling equipment.

CONTROLS

- Single stage gas valve
- Durable silicon nitride ignitor
- Self diagnostics saves last 10 fault codes regardless of power interruption
- Control features electronic air cleaner and humidifier terminals
- Integrated Refrigerant Leak Detection with connections for Leak Detection Sensors (purchased separately)

VENTING

- Designed certified for direct (2-pipe) and non direct (1-pipe) applications
- Easily vented with PVC pipe

INSTALLATION FEATURES

- Left or right utility connection
- Design certified for direct and non-direct vent applications
- Zero step horizontal conversion
- Removable floor base (upflow / horizontal units) for bottom return air

WARRANTY

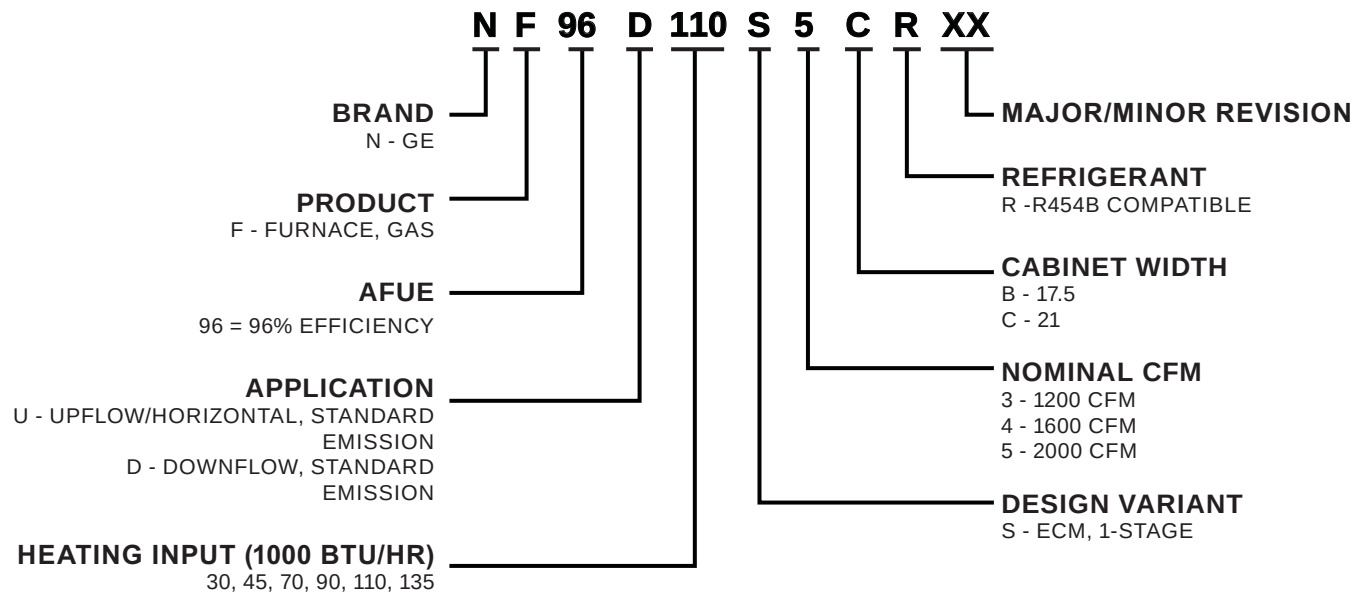
See warranty document for details.

California Only

These furnaces do not meet the South Coast Air Quality Management District (SCAQMD) Rule 1111 and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4905 NOx emission limit (14 NG/J) and cannot be installed within the SCAQMD and SJVAPCD areas. All models meet the California Nitrogen Oxides Standard NOx limit of 40 Ng/J.



MODEL NUMBER GUIDE



PHYSICAL AND ELECTRICAL DATA

	Model	Input (Btuh)	Output (Btuh)	AFUE (ICS)	Nominal Cooling Capacity	Gas Inlet (in.)	Volts/Hz/Phase	Max. Time Delay Breaker or Fuse	Nominal Full Load Amps	Trans (VA)	Approx Shipping Weight (lbs)
Upflow / Horizontal	NF96U045S3BR	44,000	42,800	96%	3 Ton	1/2	120-60-1	15	6.8	40	124
	NF96U070S3BR	66,000	63,900	96%	3 Ton	1/2	120-60-1	15	6.8	40	129
	NF96U090S4CR	88,000	85,600	96%	4 Ton	1/2	120-60-1	15	8.4	40	152
	NF96U110S5CR	110,000	107,200	96%	5 Ton	1/2	120-60-1	15	10.9	40	164
	NF96U135S5CR	132,000	127,000	96%	5 Ton	1/2	120-60-1	15	10.9	40	174
Downflow	NF96D045S3BR	44,000	42,000	96%	3 Ton	1/2	120-60-1	15	6.8	40	126
	NF96D070S4BR	66,000	64,000	96%	4 Ton	1/2	120-60-1	15	8.4	40	139
	NF96D090S4CR	88,000	86,000	96%	4 Ton	1/2	120-60-1	15	8.4	40	154
	NF96D0110S4CR	110,000	108,000	96%	5 Ton	1/2	120-60-1	15	10.9	40	162

Note: For vent length and clearances to combustibles, please reference installation instructions.

BLOWER PERFORMANCE DATA UPFLOW / HORIZONTAL

NF96U045S3BR PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	35-65	1393	360	1231	257	1140	201	910	115	857	99
0.20		1365	369	1195	268	1104	215	861	122	810	109
0.30		1333	383	1166	281	1070	224	826	132	760	118
0.40		1304	396	1140	293	1039	231	784	141	722	125
0.50		1254	392	1116	302	1002	246	728	149	673	131
0.60		1191	380	1089	311	969	255	687	157	625	141
0.70		1115	354	1047	324	941	265	651	165	582	147
0.80		987	318	976	311	906	273	601	170	537	155
0.90		858	282	859	283	835	268	555	181	489	161
1.00		713	251	703	248	713	243	497	189	444	168

NF96U070S3BR PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	35-65	1404	347	1256	256	1145	196	913	114	864	98
0.20		1374	361	1218	266	1102	206	870	119	811	103
0.30		1350	370	1192	278	1081	216	821	131	766	114
0.40		1319	384	1157	290	1043	225	780	136	721	123
0.50		1286	399	1133	300	1008	241	744	145	680	133
0.60		1241	393	1104	312	982	249	702	153	637	138
0.70		1169	373	1066	321	946	261	658	163	601	148
0.80		1064	341	1013	315	914	269	616	172	552	152
0.90		925	310	857	279	860	272	581	178	514	160
1.00		753	261	705	244	754	253	515	191	478	167

NF96U090S4CR PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	50-80	1404	347	1256	256	1145	196	913	114	864	98
0.20		1374	361	1218	266	1102	206	870	119	811	103
0.30		1350	370	1192	278	1081	216	821	131	766	114
0.40		1319	384	1157	290	1043	225	780	136	721	123
0.50		1286	399	1133	300	1008	241	744	145	680	133
0.60		1241	393	1104	312	982	249	702	153	637	138
0.70		1169	373	1066	321	946	261	658	163	601	148
0.80		1064	341	1013	315	914	269	616	172	552	152
0.90		925	310	857	279	860	272	581	178	514	160
1.00		753	261	705	244	754	253	515	191	478	167

BLOWER PERFORMANCE DATA UPFLOW / HORIZONTAL

NF96U110S5CR PERFORMANCE (Less Filter)											
External Static Pressure in. w.g.	Temp Rise	Air Volume / Watts at Different Blower Speeds									
	Rise Range °F	Bottom Return Air, Side Return Air with Optional Return Air Base, Return Air from Both Sides or Return Air from Bottom and One Side.									
		High		Med-High		Medium		Med-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	45-75	2160	658	1911	446	1742	346	1620	291	1438	220
0.20		2124	676	1858	464	1693	361	1582	306	1388	230
0.30		2084	688	1822	477	1658	373	1536	314	1336	239
0.40		2051	703	1797	492	1615	386	1497	328	1288	250
0.50		2024	718	1754	508	1581	397	1452	342	1247	261
0.60		1993	734	1716	519	1537	413	1414	353	1203	270
0.70		1942	742	1680	535	1500	423	1381	361	1157	277
0.80		1877	721	1644	547	1465	434	1342	372	1121	288
0.90		1789	693	1614	563	1423	450	1294	386	1061	300
1.00		1696	654	1580	573	1395	461	1267	396	1014	310
External Static Pressure in. w.g.	Temp Rise	Single Side Return Air – Air volumes in BOLD require field fabricated transition to accommodate 20 x 25 x 1 in. air filter in order to maintain proper air velocity.									
	Rise Range °F	High		Med-High		Medium		Med-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	45-75	2093	644	1858	438	1688	341	1590	281	1410	205
0.20		2064	655	1824	451	1653	349	1546	296	1367	216
0.30		2033	669	1788	467	1619	363	1511	306	1321	228
0.40		1996	686	1749	482	1580	376	1473	322	1275	239
0.50		1971	704	1709	498	1543	392	1436	330	1230	251
0.60		1941	720	1676	512	1503	403	1387	347	1184	262
0.70		1903	734	1644	524	1468	419	1351	356	1140	271
0.80		1855	732	1606	542	1424	430	1313	369	1105	282
0.90		1780	707	1571	554	1386	443	1273	380	1061	293
1.00		1675	670	1535	569	1352	456	1238	392	1019	302

BLOWER PERFORMANCE DATA UPFLOW / HORIZONTAL

NF96U135S5DR PERFORMANCE (Less Filter)											
External Static Pressure in. w.g.	Temp Rise	Air Volume / Watts at Different Blower Speeds									
	Rise Range °F	Bottom Return Air, Side Return Air with Optional Return Air Base, Return Air from Both Sides or Return Air from Bottom and One Side.									
		High		Med-High		Medium		Med-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	45-75	2425	901	2247	714	2033	556	1821	406	1633	306
0.20		2392	919	2214	730	1998	572	1787	420	1598	316
0.30		2361	933	2179	752	1954	588	1745	436	1549	331
0.40		2326	956	2151	771	1931	599	1694	450	1508	343
0.50		2291	971	2120	785	1885	617	1666	462	1465	356
0.60		2249	990	2078	802	1852	633	1622	476	1420	366
0.70		2223	1006	2049	819	1815	646	1583	489	1376	378
0.80		2181	1001	2002	832	1782	660	1548	501	1340	388
0.90		2061	928	1974	846	1743	678	1507	515	1298	401
1.00		1937	869	1933	857	1680	703	1478	527	1263	414
External Static Pressure in. w.g.	Temp Rise	Single Side Return Air – Air volumes in BOLD require field fabricated transition to accommodate 20 x 25 x 1 in. air filter in order to maintain proper air velocity.									
	Rise Range °F	High		Med-High		Medium		Med-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	45-75	2340	883	2167	694	1995	534	1780	392	1611	291
0.20		2303	901	2125	715	1956	551	1752	402	1560	306
0.30		2277	912	2095	733	1920	566	1711	417	1527	316
0.40		2253	933	2067	748	1882	581	1670	433	1479	329
0.50		2215	951	2037	762	1850	595	1634	444	1444	342
0.60		2188	967	2007	781	1816	608	1601	460	1404	355
0.70		2159	989	1973	797	1779	627	1565	474	1363	368
0.80		2127	1004	1938	815	1742	638	1525	487	1315	380
0.90		2096	1023	1906	828	1716	655	1487	501	1276	390
1.00		1997	936	1870	840	1670	670	1441	513	1237	399

BLOWER PERFORMANCE DATA DOWNFLOW

NF96D045S3BR PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	30-60	1385	331	1230	242	1125	192	890	113	843	98
0.20		1356	346	1201	255	1089	203	854	119	800	105
0.30		1327	359	1162	259	1058	212	814	127	761	110
0.40		1301	365	1136	267	1023	219	776	133	719	118
0.50		1270	376	1106	278	990	224	735	139	678	124
0.60		1239	377	1075	286	950	234	690	145	628	131
0.70		1179	368	1039	294	927	240	647	152	588	136
0.80		1098	347	1017	305	890	249	609	158	548	142
0.90		1011	326	967	305	862	257	574	164	513	148
1.00		892	296	879	286	817	262	538	171	476	155

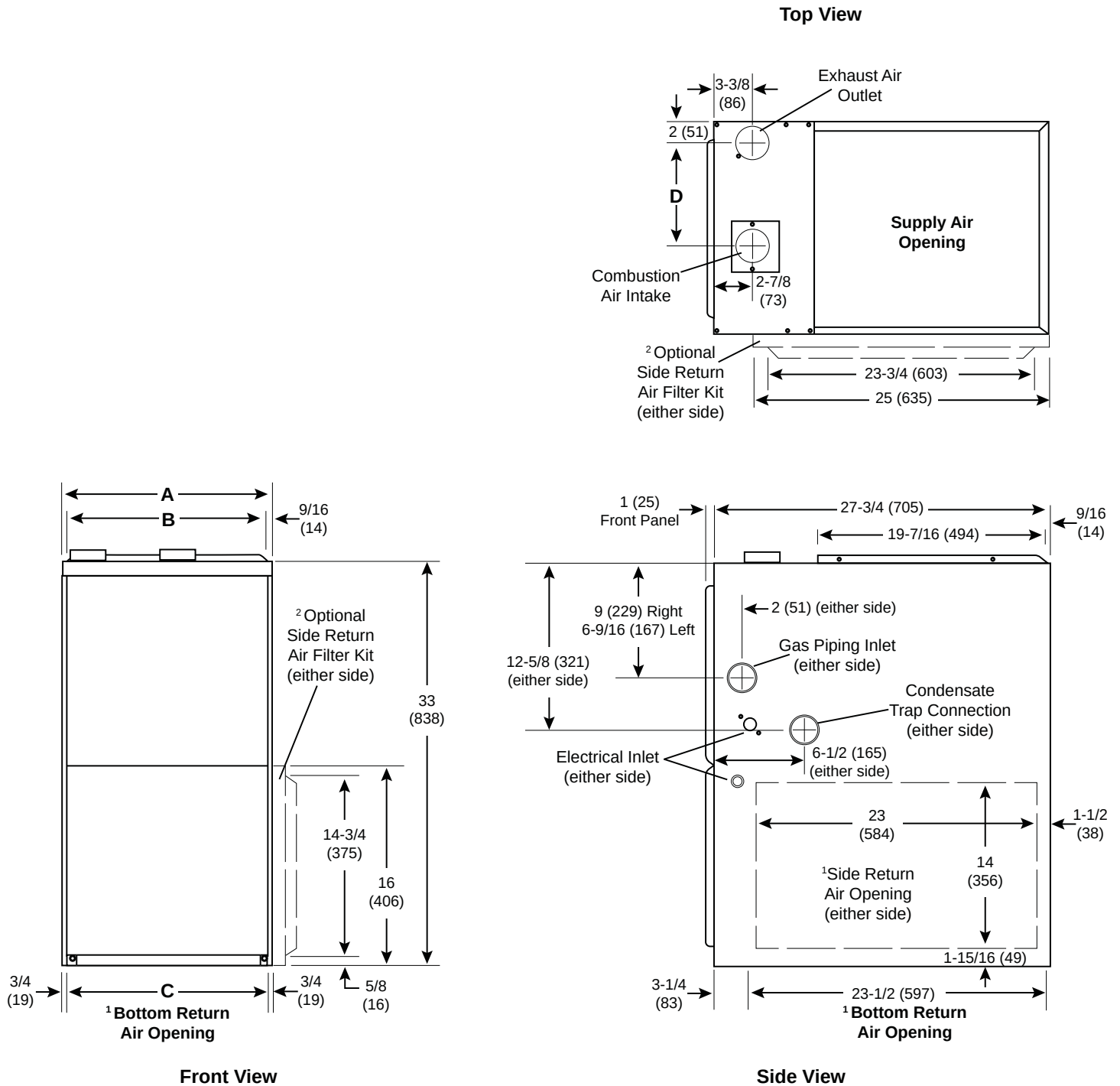
NF96D070S4BR PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	35-65	1712	502	1493	347	1320	251	1219	208	974	124
0.20		1682	516	1462	362	1282	262	1177	217	926	132
0.30		1650	529	1426	372	1244	273	1135	226	874	140
0.40		1619	541	1392	383	1204	281	1091	235	821	147
0.50		1592	556	1353	393	1161	290	1047	243	771	155
0.60		1542	554	1319	404	1121	299	1002	251	718	161
0.70		1484	546	1281	412	1078	308	959	260	659	168
0.80		1417	532	1245	423	1038	318	915	269	603	176
0.90		1341	514	1207	434	999	328	871	277	551	184
1.00		1232	485	1160	440	959	336	825	286	487	193

NF96D090S4CR PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	50-80	1714	379	1510	269	1378	215	1302	185	1172	148
0.20		1679	389	1469	279	1321	223	1238	194	1109	153
0.30		1639	396	1436	287	1288	235	1201	206	1066	163
0.40		1604	408	1384	300	1232	241	1150	209	1014	171
0.50		1569	419	1343	305	1199	249	1106	225	954	176
0.60		1510	432	1298	315	1150	258	1051	232	917	185
0.70		1487	441	1260	323	1101	267	1003	232	862	191
0.80		1422	437	1218	332	1054	275	952	241	807	199
0.90		1321	416	1175	344	1012	283	904	249	749	207
1.00		1197	383	1124	349	970	291	861	259	694	215

BLOWER PERFORMANCE DATA DOWNFLOW

NF96D0110S4CR PERFORMANCE (Less Filter)											
External Static Pressure in. w.c.	Temp Rise	Air Volume / Watts at Various Blower Speeds									
	Rise Range °F	High		Medium-High		Medium		Medium-Low		Low	
		cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts	cfm	Watts
0.10	30-60	2169	679	1929	479	1770	369	1656	308	1474	227
0.20		2121	697	1877	492	1712	383	1598	317	1417	236
0.30		2083	710	1835	502	1673	392	1543	330	1371	245
0.40		2038	721	1798	515	1627	403	1502	338	1315	253
0.50		2006	732	1747	528	1573	414	1449	351	1265	263
0.60		1966	743	1707	538	1527	420	1402	359	1197	272
0.70		1927	760	1667	547	1475	432	1352	368	1146	279
0.80		1890	767	1623	558	1434	445	1313	379	1093	288
0.90		1844	768	1575	568	1389	453	1254	388	1026	296
1.00		1728	750	1540	578	1337	463	1205	397	980	304

DIMENSIONS (IN.) UPFLOW/HORIZONTAL



	Model	A	B	C	D
Upflow / Horizontal	NF96U045S3BR	17-1/2	16-3/8	16	7-5/8
	NF96U070S3BR	17-1/2	16-3/8	16	7-5/8
	NF96U090S4CR	21	19-7/8	19-1/2	9-3/8
	NF96U110S5CR	21	19-7/8	19-1/2	9-3/8
	NF96U135S5CR	24-1/2	23-3/8	23	11-1/8

TOP VIEW

COMBUSTION AIR INTAKE

EXHAUST AIR OUTLET

Return Air Opening

Dimensions (inches):

- 9/16 (14)
- 2-1/16 (52)
- 5 (127)
- 2-1/4 (57)
- 9/16 (14)
- 27-3/4 (705)
- 19-7/16 (494)
- 9/16 (14)
- 1 (25) Front Panel

FRONT VIEW

ELECTRICAL INLET (Either Side)

CONDENSATE TRAP CONNECTION (Either Side)

GAS PIPING INLET (Either Side)

2 (51) Either Side

9-1/8 (232) Right

6-9/16 (167) Left

6-1/2 (165) Either Side

9 (229)

19-1/4 (489) Supply Air

3/4 (19)

SIDE VIEW

	Model	A	B	C	D
Upflow / Horizontal	NF96D045S3BR	17-1/2	16-3/8	16	7-5/8
	NF96D070S4BR	17-1/2	16-3/8	16	7-5/8
	NF96D090S4CR	21	19-7/8	19-1/2	19-1/2
	NF96D0110S4CR	21	19-7/8	19-1/2	19-1/2

ACCESSORY LIST

Catalog Number	Description
Natural to LP kits	
11K50	1-Stage
11K45	High-Altitude 1-Stage
17H62	30K BTUH
High Altitude Pressure Switch Kits	
11U66	4,501 - 7,500 ft [030, 045]
11U70	4,501 - 7,500 ft [070, 090, 110]
11U69	7,501 - 10,000 ft [030, 045]
11U68	7,501 - 10,000 ft [070]
11U64	7,501 - 10,000 ft [090, 110]
Return Air Base	
68W62	17.5" B Width
68W63	21.0" C Width
68W64	24.5" D Width
Downflow Combustible Flooring Base	
11M60	17.5" B Width
11M61	21.0" C Width
Flush Mount Termination (90% Furnaces only) US Only	
51W11	2" & 3" Vent Version
Concentric Vent Kit (90% Furnaces only) US Only	
71M80	1-1/2" Vent Version
69M29	2" Vent Version
60L46	3" Vent Version
Concentric Vent Kit (90% Furnaces only) Canada Only	
44W92	1-1/2" and 2" Vent Version
44W93	3" Vent Version
Transformer (75VA)	
27J32	Recommended when furnace is used with zoning or defrost thermostats and other 24V accessories requiring a higher VA rating
	Circuit breaker (furnished) is wired in series
	Replaces the standard 40VA transformer

For vent length and clearances to combustibles, please reference installation instructions.



GE APPLIANCES