ENGINEER APPROVAL

SIGNATURE DATE

Technical Specifications

9600E SERIES (NEV)

Napoleon Two Stage, Upflow High Efficiency, Variable Speed, Condensing Forced Air Gas Furnace

95.0% MIN. AFUE Certified through AHRI
Input 40,000 - 120,000 Btuh



The 9600E Series High Efficiency Gas Furnace may be installed in alcove or closet installations that require zero clearance.

Certified by CSA for application in Canada and the United States.

FEATURES and BENEFITS

- Furnace is less than 33" (838 mm) tall!
- Variable Speed ECM EON Blower Motor
- T140 Aluminized Wrinkle Bent Primary Heat Exchanger Tubes
- 29-4C Stainless Steel Heat Recovery Coil
- Aluminized Multi-Port In-Shot Burners
- Self Diagnostic Integrated Furnace Control
- Zero clearance
- Direct and Single Vent installation approved
- Concentric Venting Approved
- Certified to 4500 ft (1372 m) in Canada
- 100% Units factory fired
- Internal Condensate Trap
- Clear Front Manifold Cover
- Easy Blower removal
- Sealed Vestibule and Blower Compartments for quiet operation
- Low fire is 70% of high fire rate

WARRANTY

PRESIDENT'S LIMITED WARRANTY *(Registered)*

To the original registered owner and his or her spouse ("owner"), the **HEAT EXCHANGER*** is warranted for the owner's **LIFETIME** or so long as the owner owns the home in which the unit was originally installed, and **all remaining parts** as warranted for a period of **10 YEARS**, except as provided below. These warranties apply only if:

- The unit is installed in an owner-occupied, primary single family residence, and
- The unit is properly registered with Napoleon online within 60 days after the original installation. To register, go to www.napoleonheatingandcooling.com. Some states and provinces do not allow limitations on how long an implied limited warranty lasts or do not allow the exclusion or limition of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights which vary by jurisdiction.

With respect to the Heat Exchanger, if the heat exchanger fails within:

- the first 10 years for 9500 / 9600E / 9600 Series
- the first 15 years for 9700 Series

Napoleon will, at its discretion, provide a new equivalent gas furnace. After the 10 years (15 years - 9700 Series), Napoleon may choose to credit its prorated wholesale value towards the purchase of a new Napoleon furnace.

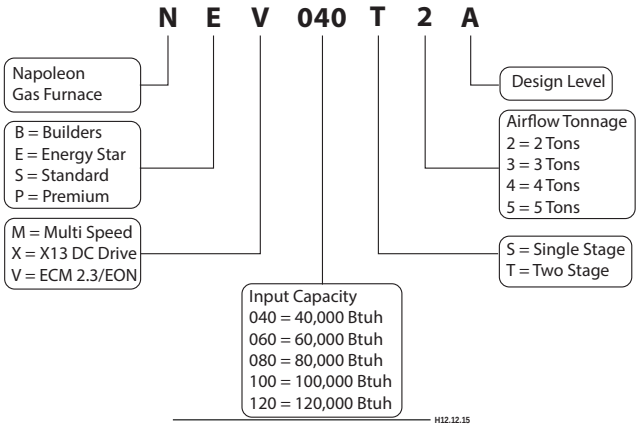
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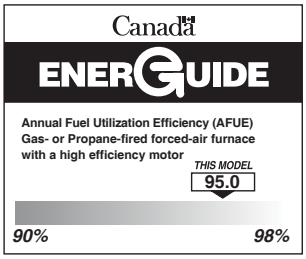
LIMITED WARRANTY *(Not Registered)*

If not registered within 60 days, the **HEAT EXCHANGER** is warranted for a period of **20 YEARS** (pro rated), and all remaining parts are warranted for a period of **5 YEARS**, all other limitations apply.

With respect to the heat exchanger, Napoleon at its discretion, after 5 years may choose to provide a credit towards a replacement Napoleon gas furnace.

MODEL BREAKDOWN







MODEL BREAKDOWN continued

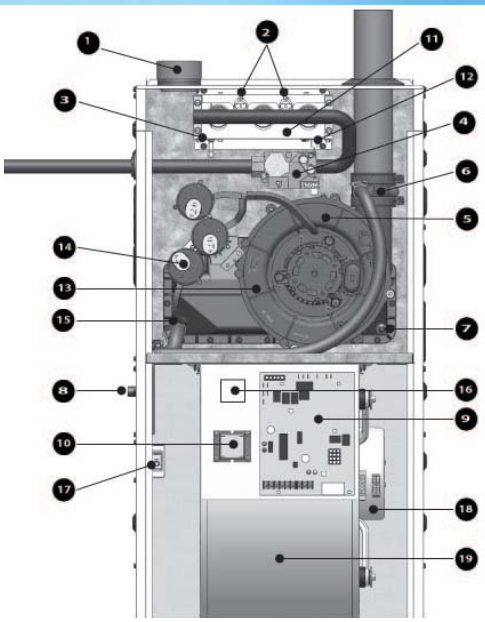
HEATING CAPACITIES

9600E SERIES	NEV040T2A	NEV060T3A	NEV080T3A	NEV080T4A	NEV100T5A	NEV120T5A
MOTOR	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON
EFFICIENCY (AFUE)	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
INPUT BTU/HR 0-4500'	40,000	58,000	77,000	77,000	100,000	120,000
OUTPUT BTU/HR 0-4500'	38,000	55,000	73,500	73,500	95,000	114,000

AIRFLOW COOLING

MOTOR	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON	ECM EON
BLOWER SIZE	10-6TDD	12-7TDD	12-7TDD	12-10TDD	12-10TDD	12-10TDD
MOTOR TYPE AND SIZE	1/3HP	1/2HP	1/2HP	3/4HP	3/4HP	1HP
MAXIMUM CFM AC	940	1125	1125	1750	1750	1750
MINIMUM CFM AC	560	560	560	700	700	700
AC TONNAGES	1½, 2, 2½	1½, 2, 2½, 3	2, 2½, 3	3, 4	2, 3, 4, 5	2, 3, 4, 5

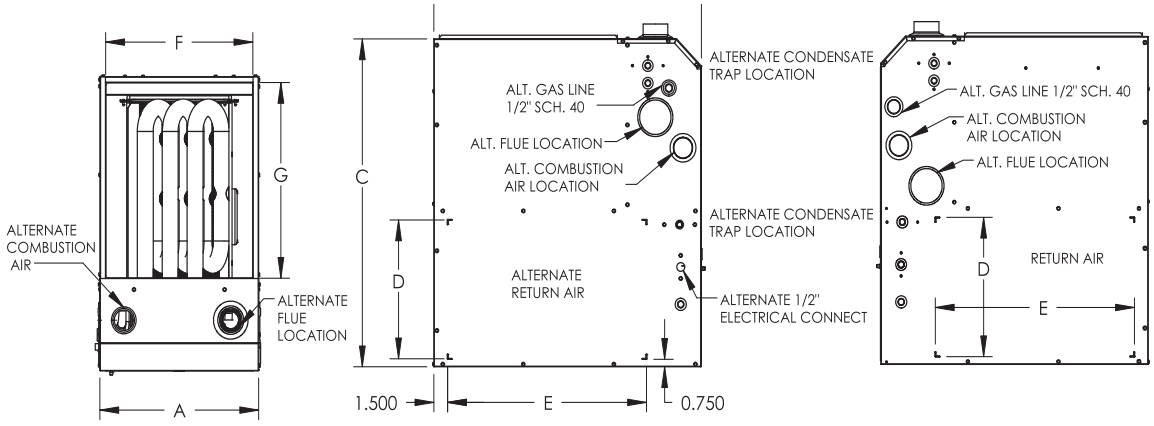
GAS FURNACE COMPONENTS



LEGEND

1. Combustion Air Intake Fitting
2. Flame Roll-Out Switch (2)
3. Flame Sensor - *located underneath*
4. Two Stage Gas Valve
5. Air High Temperature Limit
6. Vent and Drain Assembly
7. Drain for Recovery Coil (3)
8. Condensate Trap
9. Two Stage Integrated Furnace Control (IFC)
10. Transformer for 24 VAC / 40VA
11. Burner Assembly
12. Hot Surface Igniter (HSI) - *located underneath*
13. Two Speed Exhauster
14. Pressure Switch Assembly
15. Front Manifold Cover Pressure Tap (3)
16. PFC "Choke Coil" (required on ¾ and 1 Hp X13 equipped units)
17. Door Switch and Junction Box
18. Blower Motor
19. Circulating Air Blower

CABINET DIMENSIONS



CABINET DIMENSIONS continued

TABLE A - FURNACE DIMENSIONS

MODEL	INPUT HIGH	OUTPUT HIGH	INPUT LOW	OUTPUT LOW	Width A	Depth B	Height C	Supply Air (F x G)	Return Air (D x E)
	K/Btu/hr								
40	40.0	38.0	28.0	26.6	17 1/2" (445mm)	29 1/2" (749mm)	32 7/8" (835mm)	16 1/2" x 19 5/8" (419mm x 499mm)	14" x 23" (356mm x 584mm)
60	58.0	55.0	40.6	38.6					
80-3*	77.0	73.5	53.9	51.2					
80-4**	77.0	73.5	53.9	51.2	22 1/2" (572mm)			21 1/2" x 19 5/8" (546mm x 499mm)	
100	100.0	95.0	70.0	66.5					
120	120.0	114.0	84.0	79.8					

NOTE: * 3 TON, ** 4 TON

H12.6.9A

HIGH ALTITUDE

In Canada and the United States, this furnace is certified to 2000 feet (610m) on natural gas only. In the United States of America above 2000 feet, the modifications for high altitude are based on a 4% reduction of input capacity for every 1000 feet (305m) above sea level. In Canada units above 2000 feet (610m) will need to be derated 10%. Table 6 illustrates the impact of altitude for selected elevations. Consult with local fuel suppliers or authorities to determine local regulations or customs.

H18.1.2

TABLE 6 - HIGH ALTITUDE SPECIFICATIONS

Input K/Btu/hr	ALTITUDE	ORIFICE SIZE (DMS)
		NATURAL
40/60/80 100/120	0-2000 (0-610 m)	45
	2000-3000 (610-914 m)	
	3000-4000 (914-1219 m)	
	4000-5000 (1219-1524 m)	
	5000-5400 (1524-1646 m)	
	5400-6000 (1646-1829 m)	51
	6000-7000 (1829-2134 m)	52
	7000-8000 (2134-2438 m)	53
	8000-9000 (2438-2743 m)	54
	9000-10000 (2743-3048 m)	55

H12.8.6

VENTING

In Canada:
Furnace must be vented with S636 PVC or PPE

In United States:

- Schedule 40 PVC, ASTM D1785 or CSA B137.3
- PVC-DWV, ASTM D2665 or CSA B181.2
- Schedule 40 CPVC, ASTM F441 or CSA 137.6
- PVC PRIMER AND SOLVENT CEMENT: ASTM D2564
- PPE ULC S636

TABLE 4 - DIRECT AND NON-DIRECT VENT LENGTHS
Maximum Allowable Length Of Exhaust Or Intake. Minimum Vent Length 15 ft. (4.6 m) or equivalent.

INPUT K/Btu/hr	PIPE SIZE	NUMBER OF 90° ELBOWS							NOTES
		0	1	2	3	4	5	6	
40**	1½	60*	55	50	45	40	35	30	1. Count concentric vent fitting as straight pipe. 2. Use medium or long sweep elbows where possible. 3. One 90° elbow is equivalent to two 45° elbows. 4. For direct vent, the listed lengths are allowed for each vent (intake and exhaust). 5. For non-direct vent, the listed lengths are allowed for exhaust. The intake should have a 1½" or 2" snorkel intake fitting. (Figure 7)
	2	75*	70	65	60	55	50	45	
60	1½	60*	55	50	45	40	35	30	
	2	75*	70	65	60	55	50	45	
	3	100*	95	90	85	80	75	70	
80	2	50*	45	40	35	30	25	20	
	3	100*	95	90	85	80	75	70	
100	2	50*	45	40	35	30	25	20	
	3	100*	95	90	85	80	75	70	
120	3	100*	95	90	85	80	75	70	

NOTE When 1½" or 3" pipe is used, exit the cabinet with 2" pipe. Reduce or increase immediately after exiting the cabinet on both intake and exhaust.

**** Maximum allowable vent (intake and exhaust) length.***

***** 40 K units must be vented with 1½" venting if total run length is to be less than 25 ft. (7.6m).***

EQUIVALENTS:
Short Radius Elbow = 7 ft (2.13m)
Standard Radius Elbow = 5 ft (1.52m)
Long Radius Elbow = 3 ft (0.91m)
45 Degree Elbow = 2.5 ft (0.76m)
Tee

Vent lengths that require more than 6-90° elbows, add listed equivalents for every elbow up to the maximum allowable vent length.

ACCESSORIES

PART NUMBER	DESCRIPTION	WT/ lbs.
NNA-NC1625-A	MEDIA AIR CLEANER (MERV11) (16" X 25")	2
W250-0009	FILTER - 3 PACK (MERV11)	1
W370-0018	CONVERSION KIT - NATURAL TO LP	1
W370-0019	CONCENTRIC VENT KIT - 2"	5
W370-0020	CONCENTRIC VENT KIT - 3"	9
W370-0026	HIGH ALTITUDE CONVERSION KIT	1
NT144HCNPH	THERMOSTAT, 1H/1C NON PROGRAMMABLE HORIZONTAL	1
NT144HCNPV	THERMOSTAT, 1H/1C NON PROGRAMMABLE VERTICAL	1
NT151HCPV	THERMOSTAT, 1H/1C 5/2 DAY PROGRAMMABLE VERTICAL	1
NT86HCEZ	THERMOSTAT, 1H/1C EZ SET NON PROGRAMMABLE	1
NT853H2CP	THERMOSTAT, 3H/2C 7 DAY PROGRAMMABLE 4" LCD	1
NT953H2CP	THERMOSTAT, 3H/2C 7 DAY PROGRAMMABLE 12" TOUCH SCREEN	1

REPLACEMENT PARTS

PART NO.	DESCRIPTION
W010-3494	ASSY, SM FMC W/O CHOKES 40/60/80
W010-3495	KIT, LG FMC W/O CHOKES 100/120
W010-3976	ASSY, MOTOR KIT 1/3 HP ES EON 40
W010-3977	ASSY, MOTOR KIT 1/2 HP ES EON 60
W010-3978	ASSY, MOTOR KIT 1/2 HP ES EON 80-3
W010-3979	ASSY, MOTOR KIT 3/4 HP ES EON 80-4/100
W010-3980	ASSY, MOTOR KIT 1 HP ES EON 120
W010-2558	EXHAUSTER, TWO SPEED GENTEK
W010-2559	BLOWER, 12-7T HOUSING 60/80
W010-2560	BLOWER, 12-10T HOUSING 100/120
W010-2561	CONTROL, INTERGRATED ECM 2.3/EON
W010-2562	SENSOR, FLAME - REPLACEMENT
W010-2563	FUSE, 5 AMP
W010-2564	IGNITER, 601 TYPE TB 120V
W010-2565	SWITCH, BLOWER DOOR
W010-2567	SWITCH, HEAT LIMIT 140°F - 20°F
W010-2568	SWITCH, BURNER ROLLOUTS REPL 350°F
W010-2569	SWITCH, PRESSURE UNIT TRIPLE
W010-2570	SWITCH, HEAT LIMIT 150°F
W010-2571	TRANSFORMER, CHOKE COIL
W010-2572	TRANSFORMER, 120V / 24V 40VA
W010-2573	VALVE, TWO STAGE
W010-2610	BLOWER, 10-6T HOUSING 40
W010-2768	ASSY, CONDENSATE TRAP
W010-2993	SWITCH, HEAT LIMIT 170°F
W010-3241	SWITCH, HEAT LIMIT 125°F
W020-0647	BAGGIE, REPLACEMENT PARTS
W470-0024	PAINT, TOUCH UP RED

NAPOLEON

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