

Technical Specifications



9500 B SERIES (NSM and NPX)

Napoleon Single Stage, Multi Speed or Endura Pro, Condensing Multi Position Gas Furnace

95.0% AFUE Certified through AHRI
Input 30,000 - 120,000 Btuh



The 9500 B Series High Efficiency Gas Furnace may be installed in four positions, 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!
- Multi Speed PSC Blower Motor or Endura Pro 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
- Durable pre-paint and thermally insulated Cabinet
- Zero clearance in all positions
- Direct and Single Vent installation approved
- One LP Conversion Kit
- 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
- Concentric Venting Approved

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 limitation 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.

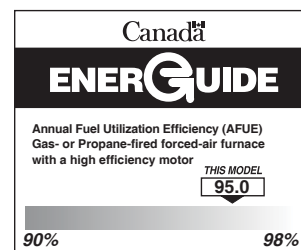
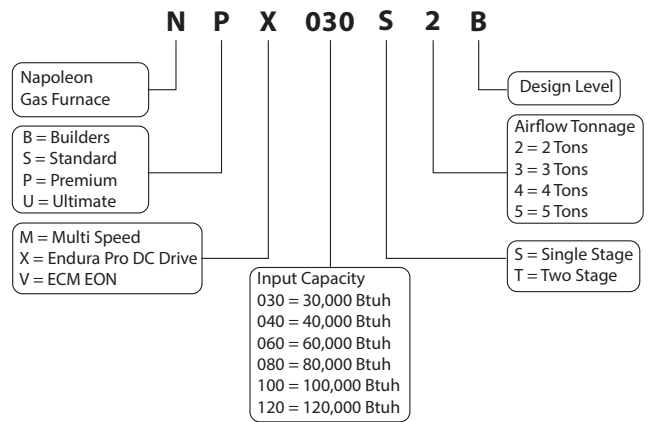
OR

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

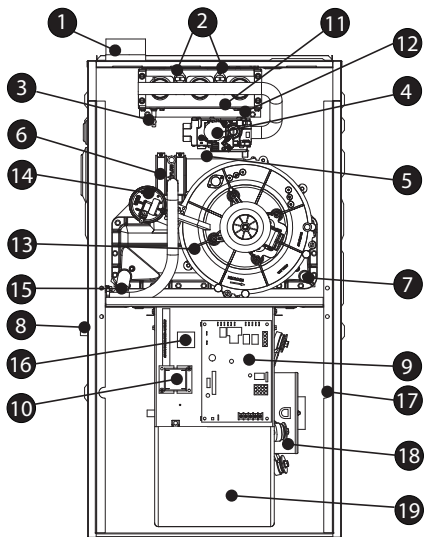
HEATING CAPACITIES

9500 - B SERIES	NPX030S2B	NSM030S2B	NPX040S2B	NSM040S2B	NPX060S3B	NSM060S3B	NPX080S3B	NSM080S3B	NPX080S4B	NSM080S4B	NPX100S5B	NSM100S5B	NPX120S5B	NSM120S5B
MOTOR	EnduraPro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC
EFFICIENCY (AFUE)	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
INPUT BTU/HR	30,000	30,000	40,000	40,000	60,000	60,000	80,000	80,000	80,000	80,000	100,000	100,000	120,000	120,000
OUTPUT BTU/HR	28,500	28,500	38,000	38,000	57,000	57,000	76,000	76,000	76,000	76,000	95,000	95,000	114,000	114,000

AIRFLOW COOLING

9500 - B SERIES	NPX030S2B	NSM030S2B	NPX040S2B	NSM040S2B	NPX060S3B	NSM060S3B	NPX080S3B	NSM080S3B	NPX080S4B	NSM080S4B	NPX100S5B	NSM100S5B	NPX120S5B	NSM120S5B
MOTOR	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC	Endura Pro	PSC
BLOWER SIZE	10-6TDD	10-6TDD	10-6TDD	10-6TDD	10-6TDD	10-6TDD	12-7TDD	12-7TDD	12-10TDD	12-10TDD	12-10TDD	12-10TDD	12-10TDD	12-10TDD
MOTOR TYPE / SIZE	1/3HP	1/3HP	1/3HP	1/3HP	1/2HP	1/2HP	1/2HP	1/2HP	3/4HP	3/4HP	3/4HP	3/4HP	1HP	3/4HP
MAXIMUM CFM AC	940	750	940	750	1125	1200	1125	1200	1460	1560	1750	2000	1750	2000
MINIMUM CFM AC	560	560	560	560	560	800	560	800	700	1200	700	1200	700	1200
AC TONNAGES	1.5,2,2.5	1.5,2,2.5	1.5,2,2.5	1.5,2,2.5	1.5,2,2.5,3	1.5,2,2.5,3	1.5,2,2.5,3	2,2.5,3	2,3,4,5	3,4,5	2,3,4,5	3,4,5	2,3,4,5	3,4,5

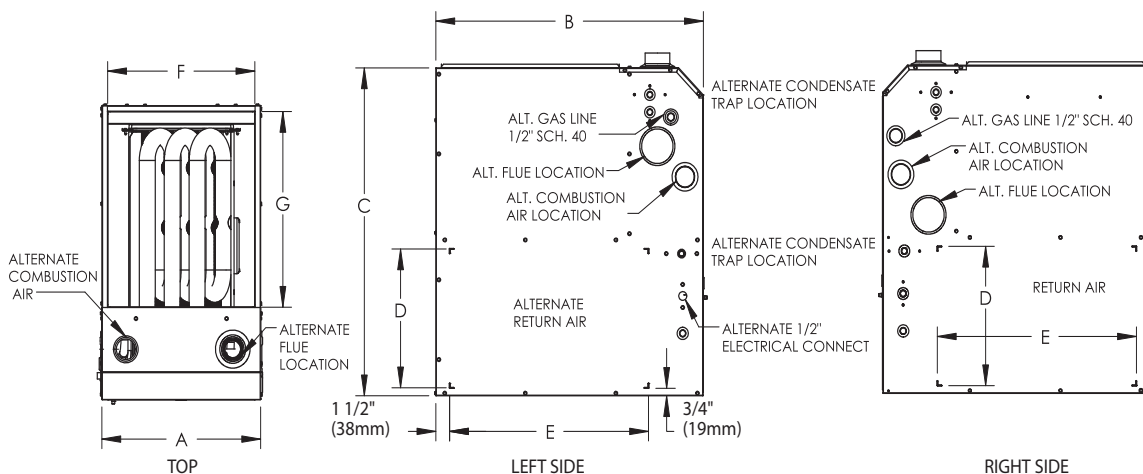
GAS FURNACE COMPONENTS



LEGEND

1. Combustion Air Intake Fitting
2. Flame Roll-Out Switch; models: 30/40 (1), 60/80/100/120 (2)
3. Flame Sensor
4. Single Stage Gas Valve
5. Air High Temperature Limit
6. Vent Drain Assembly Coupling
7. Drain for Recovery Coil (3)
8. Condensate Trap
9. Single Stage Integrated Furnace Control (IFC)
10. Transformer for 24 VAC / 40VA
11. Burner Assembly
12. Hot Surface Igniter (HSI)
13. Single Speed Exhauster
14. Pressure Switch Assembly
15. Front Manifold Cover Pressure Tap (3)
16. PFC "Choke Coil" (required on 3/4 and 1Hp Endura Pro equipped units)
17. Door Switch and Junction Box
18. Blower Motor
19. Circulating Air Blower

CABINET DIMENSIONS



CABINET DIMENSIONS continued

TABLE A - FURNACE DIMENSIONS

INPUT K/Btu/hr	OUTPUT HIGH K/Btu/hr	Width A	Depth B	Height C	Supply Air (F x G)	Return Air (D x E)
30	29	17 1/2" (445mm)	29 1/2" (749mm)	32 7/8" (835mm)	16 1/4" x 19 5/8" (413mm x 499mm)	14" x 23" (356mm x 584mm)
40	38					
60	57					
80-3*	76	22 1/2" (572mm)			21 1/4" x 19 5/8" (540mm x 499mm)	
80-4**						
100	95					
120	114					

NOTE: * 3 TON, ** 4 TON

H12.6.6A

BLOWER PERFORMANCE

TABLE 7 - AIR FLOW

ENDURA PRO: ESP 0.1" to 1.0" / PSC: ESP 0.5"					
INPUT	A/C TONNAGE	PSC TAP COLOUR	PSC CFM	Endura Pro TAP #	Endura Pro CFM
NSM030S2B NPX030S2B	HIGH	BLACK	744	5	940
	MED-HIGH	BLUE	615	4	750
	MED-LOW	YELLOW	573	3	560
NSM040S2B NPX040S2B	LOW	RED	568	*2	N/A
	HIGH	BLACK	744	5	940
	MED-HIGH	BLUE	638	4	750
NSM060S3B NPX060S3B	MED-LOW	YELLOW	573	3	560
	LOW	RED	534	*2	N/A
	HIGH	BLACK	1075	5	1125
NSM080S3B NPX080S3B	MED-HIGH	BLUE	1034	4	940
	MED-LOW	YELLOW	975	3	750
	LOW	RED	892	*2	560
NSM080S4B NPX080S4B	HIGH	BLACK	1300	5	1125
	MED-HIGH	BLUE	1214	4	940
	MED-LOW	YELLOW	1025	3	750
NSM100S5B NPX100S5B	LOW	RED	795	*2	560
	HIGH	BLACK	1569	5	1500
	MED-HIGH	BLUE	1522	4	1125
NSM120S5B NPX120S5B	MED-LOW	YELLOW	1435	3	750
	LOW	RED	1290	*2	700
	HIGH	BLACK	1836	5	1750
NSM100S5B NPX100S5B	MED-HIGH	BLUE	1779	4	1400
	MED-LOW	YELLOW	1595	3	1050
	LOW	RED	1355	*2	700
NSM120S5B NPX120S5B	HIGH	BLACK	1712	5	1750
	MED-HIGH	BLUE	1761	4	1400
	MED-LOW	YELLOW	1760	3	1050
	LOW	RED	1780	*2	700

* TAP #2 IS CONTINUOUS FAN

H12.1.6C

HIGH ALTITUDE

In Canada, this furnace does not need to be converted for high altitude (2000-4500ft), when the fuel source is natural gas. It has been certified to operate at high altitude as manufactured. If the fuel source is liquid propane, refer to High Altitude Specifications table for appropriate derate above 2000ft based on a 4% reduction of input capacity for every 1000ft above sea level.

In the United States, this furnace does not need to be converted for high altitude from (2000-5400ft), when the fuel source is natural gas. It has been certified to operate at high altitude as manufactured up to 5400ft only. Beyond 5400ft the modifications are based on a 4% reduction of input capacity for every 1000ft above sea level. If the fuel source is liquid propane, refer to High Altitude Specifications table for appropriate derate above 2000ft based on a 4% reduction of input capacity for every 1000ft above sea level. Consult with local fuel suppliers or authorities to determine local regulations or customs.

H18.1B

TABLE 6 - HIGH ALTITUDE SPECIFICATIONS

Input K/Btu/hr	ALTITUDE	ORIFICE SIZE (DMS)	
		NATURAL	LP GAS
40/60/80 100/120	0-2000 (0-610 m)	45	55
	2000-3000 (610-914 m)		56
	3000-4000 (914-1219 m)		57
	4000-5000 (1219-1524 m)		58
	5000-5400 (1524-1646 m)		59
	5400-6000 (1646-1829 m)	51	60
	6000-7000 (1829-2134 m)	52	61
	7000-8000 (2134-2438 m)	53	62
	8000-9000 (2438-2743 m)	54	63
	9000-10000 (2743-3048 m)	55	65

Input K/Btu/hr	ALTITUDE	ORIFICE SIZE (DMS)	
		NATURAL	LP GAS
30	0-2000 (0-610 m)	50	57
	2000-3000 (610-914 m)		58
	3000-4000 (914-1219 m)		59
	4000-5000 (1219-1524 m)		60
	5000-5400 (1524-1646 m)		61
	5400-6000 (1646-1829 m)	56	62
	6000-7000 (1829-2134 m)	57	63
	7000-8000 (2134-2438 m)	58	64
	8000-9000 (2438-2743 m)	59	65
	9000-10000 (2743-3048 m)	60	67

Gas input ratings are certified for elevations to 5400 ft. (1646 m) on natural gas. For elevations above 5400 ft. (1646 m) on natural gas, or LP fuel source above 2000 ft. (610 m), follow orifice derate chart above.

H12.8.1A

VENTING

In Canada:

Furnace must be vented with ULC S636 certified PVC manufactured by IPEX, or ULC S636 certified PPE manufactured by M&G Duravent.

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 Manufactured by M&G Duravent

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

INPUT K/Btu/hr	PIPE SIZE	NUMBER OF 90° ELBOWS							NOTES
		0	1	2	3	4	5	6	
**30/40	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	
80	3	*100	95	90	85	80	75	70	
	2	*50	45	40	35	30	25	20	
100	3	*100	95	90	85	80	75	70	
	2	*50	45	40	35	30	25	20	
120	3	*100	95	90	85	80	75	70	
	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.**
**** 30 and 40 K units must be vented with 1½" venting if total run length is to be less than 25 ft. (7.6m).**

H12.4.4

EQUIVALENTS:

- Short Radius Elbow = 7ft (2.13m)
 - Standard Radius Elbow = 5ft (1.52m)
 - Long Radius Elbow = 3ft (0.91m)
 - 45 Degree Elbow = 2.5ft (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
NT144HCNPB	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 Number	Part Description
W010-3494	ASSY,SM FMC W/O CHOKES 30/40/60/80
W010-3495	ASSY, LG FMC W/O CHOKES 100/120
W010-2990	ASSY, MOTOR KIT 1/6HP PSC SS 30/40-2
W010-2602	ASSY MOTOR KIT 1/2HP PSC SS 40-3/60/80-3
W010-2603	ASSY MOTOR KIT 3/4HP PSC SS 80-4/100/120
W010-2604	ASSY, MOTOR KIT 1/3 HP ENDURA PRO SS 30/40
W010-2605	ASSY, MOTOR KIT 1/2 HP ENDURA PRO SS 60
W010-2606	ASSY, MOTOR KIT 1/2 HP ENDURA PRO SS 80-3
W010-3202	ASSY MOTOR KIT 3/4HP ENDURA PRO SS 80-4
W010-2607	ASSY, MOTOR KIT 3/4 HP ENDURA PRO SS 100
W010-2608	ASSY, MOTOR KIT 1 HP ENDURA PRO SS 120
W010-2609	EXHAUSTER, SINGLE SPEED
W010-2610	BLOWER, 10-6T HOUSING SS 30/40/60
W010-2559	BLOWER, 12-7T HOUSING 80
W010-2560	BLOWER, 12-10T HOUSING 100/120
W010-2612	CONTROL, INTERGRATED ENDURA PRO SS
W010-2562	SENSOR, FLAME - REPLACEMENT
W010-2613	FUSE, 3 AMP SS
W010-2752	SWITCH, PRESSURE UNIT DOUBLE PSI
W010-2768	ASSY, CONDENSATE TRAP
W010-2564	IGNITER, 601 TYPE TB 120V
W010-2565	SWITCH, PRESSURE UNIT
W010-2568	SWITCH, BURNER ROLLOUTS REPL 350°F
W010-2570	SWITCH, HEAT LIMIT 150°F
W010-2571	TRANSFORMER, CHOKE COIL
W010-2572	TRANSFORMER, 120V / 24V 40VA
W010-2614	VALVE, SINGLE STAGE SS
W010-2993	SWITCH, HEAT LIMIT 170°F
W010-2994	SWITCH, HEAT LIMIT 180°F
W010-3241	SWITCH, HEAT LIMIT 125°F
W020-0647	BAGGIE, REPLACEMENT PARTS



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