Arcoaire®
Air Conditioning & Heating

N9MSB
PS 92
Product Specifications

92.1% AFUE, Single Stage, PSC Gas Furnace

EASIER TO SELL

- 92.1% AFUE, all models all positions, California NOx approved
- Certified to leak 2% or less of nominal air conditioning CFM delivered when pressurized to 1-inch water column with all present air inlets, air outlets, and condensate drain port(s) sealed
- Approved for Twinning applications (0601412 through 1202422) with accessory (order separately)
- Approved for Manufactured Housing/Mobile Home applications (0401410 through 1202422) with accessory (order separately)

TOUGHER

- Flame roll–out sensors standard
- Adjustable heating blower OFF delay
- Factory set blower ON delay
- RPJ® primary heat exchanger
- Stainless steel secondary heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride ignitor
- High quality, corrosion–resistant, prepainted steel cabinet

EASIER TO INSTALL AND SERVICE

- Direct vent (2–pipe), single–pipe venting or ventilated combustion air
- 24 VAC humidifier terminal & electronic air cleaner terminal
- 35” (889mm) high, for ease of installation
- Simplified, factory installed internal condensate drain system
- Innovative knobs for easy door removal and secure attachment
- Factory shipped for natural gas, with propane gas conversion kits available
- Four position – upflow/downflow/horizontal (left/right) installation
- At least twelve different venting configurations
- Through the casing flue pipe for counterflow or horizontal applications with accessory (order separately)
- Concentric vent available
- Self diagnostics with super bright LED
- Slide out heat exchanger and blower assembly

WARRANTY *

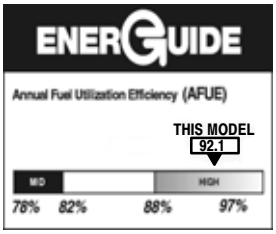
- 20 heat exchanger limited warranty
- 5 year parts limited warranty
  - With timely registration, an additional 5 year parts limited warranty

* For owner occupied, residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.

Illustrations and photographs are only representative.
Some product models may vary.

⚠ WARNING

CARBON MONOXIDE POISONING AND FIRE HAZARD
Failure to follow this warning could result in personal injury, death, and/or property damage.
This furnace is not designed for use in recreation vehicles or outdoors. This furnace is designed for use in manufactured (Mobile) homes when an optional Mobile Home accessory kit is installed.
Failure to follow this warning could result in personal injury, death, and/or property damage.



Use of the AHRI Certified TM Mark indicates a manufacturer’s participation in the program. For verification of certification for individual products, go to www.ahridirectory.org .

Model Number	Input (MBTUH)	Efficiency AFUE	Cooling Capacity CFM range @ .5 in. w.c. (125 Pa)	Dimensions H x W x D Inches (Millimeters)	Shipping Wt. Lbs (Kg)
N9MSB0401410B	40,000	92.1%	580–965	35 x 14-3/16 x 29-1/2 (889 x 361 x 750)	121 (55)
N9MSB0401712B	40,000	92.1%	670–1100	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	125 (57)
N9MSB0601412B	60,000	92.1%	630–1155	35 x 14-3/16 x 29-1/2 (889 x 361 x 750)	127 (57)
N9MSB0601716B	60,000	92.1%	685–1505	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	142 (65)
N9MSB0801716B	80,000	92.1%	780–1630	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	151 (69)
N9MSB0802120B	80,000	92.1%	835–1960	35 x 21 x 29-1/2 (889 x 533 x 750)	159 (72)
N9MSB1002116B	100,000	92.1%	875–1570	35 x 21 x 29-1/2 (889 x 533 x 750)	166 (76)
N9MSB1002122B	100,000	92.1%	1330–2280	35 x 21 x 29-1/2 (889 x 533 x 750)	166 (76)
N9MSB1202422B	120,000	92.1%	1350–2230	35 x 24-1/2 x 29-1/2 (889 x 622 x 750)	184 (84)

MODEL NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2	3	4	5	6,7,8	9,10	11,12	13	14
	N	**9**	**M**	**S**	**B**	**060**	**17**	**14**	**B**	**1**

F/G = Mainline
N = Entry

9 = 90+% AFUE **EFFICIENCY**

M = Multiposition **POSITION**

A = Modulating ECM Variable Speed Blower
V = ECM Variable Speed
X = ECM Blower (Speed Select)
S = Single–stage
T = Two–stage **TYPE**

B= Base AFUE Efficiency
C = Communicating
E = Extra AFUE Efficiency
T = Two–Stage **FEATURE**

040 = 40,000 BTU/hr
060 = 60,000 BTU/hr
080 = 80,000 BTU/hr
100 = 100,000 BTU/hr
120 = 120,000 BTU/hr
140 = 140,000 BTU/hr **HEAT INPUT**

14 = 14–3/16”
17 = 17–1/2”
21 = 21”
24 = 24–1/2” **CABINET WIDTH**

08 = 800 CFM
10 = 1000 CFM
12 = 1200 CFM
14 = 1400 CFM
16 = 1600 CFM
20 = 2000 CFM
22 = 2200 CFM **NOMINAL MAXIMUM COOLING AIRFLOW @ .5 IN. W.C.**

SALES (MAJOR) REVISION DIGIT

ENGINEERING (MINOR) REVISION DIGIT

ACCESSORIES PART NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2	3	4	5, 6, 7	8, 9	10, 11
	N	**A**	**H**	**A**	**001**	**01**	**DH**

N = Non–Branded **BRANDING**

A = Accessory **PRODUCT GROUP**

H = Heating **KIT USAGE**

A = Original
B = 2nd Generation **MAJOR SERIES**

Product Identifier Number

Package Quantity

Type of Kit (Example: DH = Draft Hood – Chimney Adapter)

PHYSICAL DATA

UNIT SIZE (NATURAL GAS Ratings)			0401410B	0401712B	0601412B	0601716B	0801716B
Input	Heat	(BTUH)	40,000	40,000	60,000	60,000	80,000
Output	Heat	(BTUH)	37,000	37,000	56,000	56,000	75,000
Efficiency	AFUE % (ICS)		92.1				
Certified Temperature Rise Range ºF (ºC)			35–65(19–36)		40–70(22–39)		

UNIT SIZE (NATURAL GAS Ratings)			0802120B	1002116B	1002122B	1202422B
Input	Heat	(BTUH)	80,000	100,000	100,000	120,000
Output	Heat	(BTUH)	75,000	93,000	93,000	112,000
Efficiency	AFUE % (ICS)		92.1			
Certified Temperature Rise Range ºF (ºC)			35–65(19–36)	40–70(22–39)		45–75(25–42)

ICS — Isolated Combustion System

AIRFLOW CAPACITY AND BLOWER DATA

UNIT SIZE		0401410B	0401712B	0601412B	0601716B	0801716B
Rated External Static Pressure in.w.c.(kPa)	Heating	0.10(.025)	0.10(.025)	0.12(.05)	0.12(.05)	0.15(.38)
	Cooling	.5 (.125)				
Airflow Delivery @ Rated ESP (CFM)	Heating	920	1005	960	1005	1085
	Cooling	965	1100	1155	1505	1630
Cooling Capacity (tons) @ 400, 350 CFM/ton	400 CFM/ton	2.5	2.5	2.5	3.5	4
	350 CFM/ton	3	3	3	4	4.5
Direct–Drive Motor Type		PSC – Permanent Split Capacitor				
Direct–Drive Motor HP		0.3	0.5	0.3	0.5	0.5
Motor Full Load Amps		4.6	6.8	4.6	6.8	7.4
RPM Range		500–1150				
Speed Selections		4	5	4	5	5
Blower Wheel Dia x Width	inches	11 x 7	11 x 7	11 x 7	11 x 8	11 x 8
Air Filtration System		Field Supplied				
Filter Used for Certified Watt Data		NAHA00506FB				

UNIT SIZE		0802120B	1002116B	1002122B	1202422B
Rated External Static Pressure in.w.c.(kPa)	Heating	0.15(.38)	0.20(.050)	0.20(.050)	0.20(.050)
	Cooling	.5 (.125)			
Airflow Delivery @ Rated ESP (CFM)	Heating	1140	1475	1640	2355
	Cooling	1960	1570	2280	2230
Cooling Capacity (tons) @ 400, 350 CFM/ton	400 CFM/ton	5	4	5+	5+
	350 CFM/ton	5+	4.5	5+	5+
Direct–Drive Motor Type		PSC – Permanent Split Capacitor			
Direct–Drive Motor HP		.75	0.5	1	1
Motor Full Load Amps		8.2	6.5	13.8	14.1
RPM Range		500–1150			
Speed Selections		5	4	5	5
Blower Wheel Dia x Width	inches	11 x 10	11 x 10	11 x 10	11 x 11
Air Filtration System		Field Supplied			
Filter Used for Certified Watt Data		NAHA00706FB			

CONTROLS

UNIT SIZE	0401410B	0401712B	0601412B	0601716B	0801716B
Gas Connection Size	1/2” – NPT				
Burners (Monoport)	2	2	3	3	4
Gas Valve (Redundant) Manufacturer	White Rodgers™				
Minimum Inlet Gas pressure in. w.c. (kPa)	4.5 (1.1)				
Maximum Inlet Gas pressure in. w.c. (kPa)	13.6 (3.4)				
Ignition Device	Silicon Nitride				
Limit Control	205	180	220	205	210**
Heating Blower Control (Heating Off–Delay)	Adjustable: 90, 120, 150, 180 seconds				
Cooling Blower Control (Time Delay Relay)	90 seconds				
Thermostat Connections	R, W, Y, G, C				
Accessory Connections	EAC (115vac); HUM (24vac)				

** Limit does not use a gasket

UNIT SIZE	0802120B	1002116B	1002122B	1202422B
Gas Connection Size	1/2” – NPT			
Burners (Monoport)	4	5	5	6
Gas Valve (Redundant) Manufacturer	White Rodgers™			
Minimum Inlet Gas pressure in. w.c. (kPa)	4.5 (1.1)			
Maximum Inlet Gas pressure in. w.c. (kPa)	13.6 (3.4)			
Ignition Device	Silicon Nitride			
Limit Control	215	215	215	195
Heating Blower Control (Heating Off–Delay)	Adjustable: 90, 120, 150, 180 seconds			
Cooling Blower Control (Time Delay Relay)	90 seconds			
Thermostat Connections	R, W, Y, G, C			
Accessory Connections	EAC (115vac); HUM (24vac)			

ELECTRICAL DATA

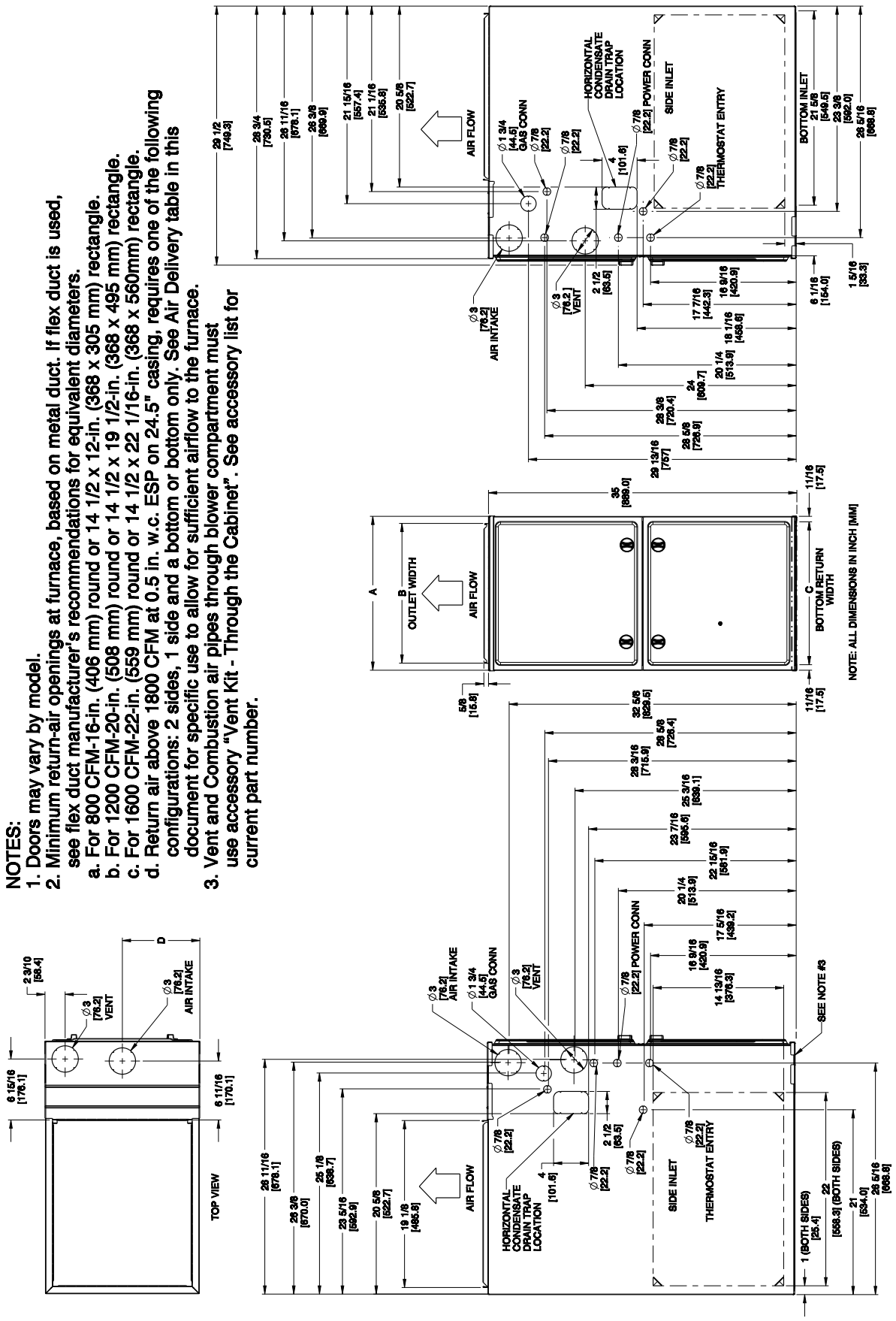
UNIT SIZE		0401410B	0401712B	0601412B	0601716B	0801716B
Input Voltage (Volts–Hertz–Phase)		115 – 60 – 1				
Operating Voltage Range	Min.–Max.	104 – 127				
Maximum Input Amps	Amps	5.2	7.4	5.4	7.6	8.2
Unit Ampacity	Amps	7.5	10.3	7.6	10.4	11.1
Minimum Wire Size	AWG	14	14	14	14	14
Maximum Wire Length @ Min Wire Size	Feet (M)	49(14.9)	36(11.0)	48(14.6)	35(10.7)	33(10.1)
Maximum Fuse/Circuit Breaker (Time–Delay Type Recommended)	Amps	15	15	15	15	15
Transformer Capacity		24 VAC Output / 40 VA				
External Control Power Available	Heating	27.9 VA				
	Cooling	34.6 VA				

UNIT SIZE		0802120B	1002116B	1002122B	1202422B
Input Voltage (Volts–Hertz–Phase)		115 – 60 – 1			
Operating Voltage Range	Min.–Max.	104 – 127			
Maximum Input Amps	Amps	9	7.3	14.6	14.9
Unit Ampacity	Amps	12.1	10.1	19.2	19.6
Minimum Wire Size	AWG	14	14	12	12
Maximum Wire Length @ Min Wire Size	Feet (M)	30(9.1)	36(11.0)	29(8.8)	29(8.8)
Maximum Fuse/Circuit Breaker (Time–Delay Type Recommended)	Amps	20	15	20	20
Transformer Capacity		24 VAC Output / 40 VA			
External Control Power Available	Heating	27.9 VA			
	Cooling	34.6 VA			

UNIT DIMENSIONS

NOTES:

1. Doors may vary by model.
2. Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameters.
   a. For 800 CFM-16-in. (406 mm) round or 14 1/2 x 12-in. (368 x 305 mm) rectangle.
   b. For 1200 CFM-20-in. (508 mm) round or 14 1/2 x 19 1/2-in. (368 x 495 mm) rectangle.
   c. For 1600 CFM-22-in. (559 mm) round or 14 1/2 x 22 1/16-in. (368 x 560mm) rectangle.
   d. Return air above 1800 CFM at 0.5 in. w.c. ESP on 24.5" casing, requires one of the following configurations: 2 sides, 1 side and a bottom or bottom only. See Air Delivery table in this document for specific use to allow for sufficient airflow to the furnace.
3. Vent and Combustion air pipes through blower compartment must use accessory "Vent Kit - Through the Cabinet". See accessory list for current part number.



SD5060–4 Rev F

FURNACE SIZE	A CABINET WIDTH	B OUTLET WIDTH	C BOTTOM INLET WIDTH	D AIR INTAKE	SHIP WT. LB (KG)
0401410	14–3/16 (361)	12–1/2 (319)	12–9/16 (322)	7–1/8 (181)	121 (55)
0401712	17–1/2 (445)	15–7/8 (403)	16 (406)	8–3/4 (222)	125 (57)
0601412	14–3/16 (361)	12–1/2 (319)	12–9/16 (322)	7–1/8 (181)	127 (57)
0601716	17–1/2 (445)	15–7/8 (403)	16 (406)	8–3/4 (222)	142 (65)
0801716	17–1/2 (445)	15–7/8 (403)	16 (406)	8–3/4 (222)	151 (69)
0802120	21 (533)	19–3/8 (492)	19–1/2 (495)	10–1/2 (267)	159 (72)
1002116	21 (533)	19–3/8 (492)	19–1/2 (495)	10–1/2 (267)	166 (76)
1002122	21 (533)	19–3/8 (492)	19–1/2 (495)	10–1/2 (267)	166 (76)
1202422	24–1/2 (622)	22–7/8 (581)	23 (584)	12–1/4 (311)	184 (84)

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS FOR ALL UNITS	
POSITION	CLEARANCE In(mm)
REAR	0
FRONT (Combustion air openings in furnace and in structure)	1 (25)
Required for service	*24 (610)
All Sides of Supply Plenum	*1 (25)
Sides	0
Vent	0
Top of Furnace	1 (25)

* Consult your local building codes.

AIR DELIVERY – CFM (with filter)												
UNIT SIZE	RETURN-AIR CONNECTION	SPEED TAPS [2]	EXTERNAL STATIC PRESSURE (in.w.c.)									
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
0401410	SIDE/BOTTOM	Black	1160	1120	1070	1020	965	905	835	765	**695**	**630**
		Blue	970	940	905	865	825	770	715	655	585	**515**
		Yellow	920	890	855	820	770	720	665	600	545	**465**
		Red	730	705	670	630	580	535	495	445	**380**	**335**
0401712	SIDE/BOTTOM	Black	1310	1255	1205	1150	1100	1045	**985**	**930**	**870**	**805**
		Yellow	1215	1165	1120	1070	1025	970	915	860	800	740
		Orange	1065	1030	1000	960	920	875	830	780	725	670
		Blue	1005	980	950	920	880	840	790	745	695	640
		Red	750	740	720	700	670	640	615	585	550	500
0601412	SIDE/BOTTOM	Black	1295	1265	1230	1195	1155	1110	1055	990	895	795
		Blue	1035	1010	980	940	905	865	805	740	655	580
		Yellow	965	940	915	885	855	805	750	685	610	530
		Red [5]	760	735	705	675	630	570	520	470	**405**	**335**
0601716	SIDE/BOTTOM	Black	1760	1705	1635	1575	1505	1430	1355	1270	1180	**1090**
		Yellow	1415	1400	1365	1335	1290	1240	1180	1115	1040	965
		Orange	1065	1060	1050	1035	1010	975	940	890	835	770
		Blue	1010	1000	990	975	955	925	885	845	785	720
		Red	770	745	730	710	685	660	625	585	545	**500**
0801716	SIDE/BOTTOM	Black	1800	1770	1735	1685	1630	1570	1495	1415	1330	1230
		Yellow	1445	1430	1410	1385	1350	1305	1255	1195	1120	1045
		Orange	1250	1240	1225	1200	1170	1130	1090	1040	975	910
		Blue	1090	1080	1060	1035	1010	970	930	885	835	765
		Red [5]	880	860	835	810	780	750	710	665	615	560
0802120	BOTTOM or TWO-SIDES [3,4]	Black	2310	2235	2140	2050	1960	1860	1755	1650	1535	1430
		Yellow	1720	1700	1670	1625	1570	1505	1435	1360	1275	1185
		Orange	1515	1500	1480	1445	1405	1350	1290	1225	1155	1075
		Blue	1150	1135	1105	1080	1050	1020	980	935	880	815
		Red	945	915	885	860	835	805	770	720	670	610
1002116	SIDE/BOTTOM	Black	1725	1700	1665	1620	1570	1510	1445	1365	1265	1160
		Blue	1500	1475	1450	1410	1370	1330	1260	1180	1095	1010
		Yellow [5]	1235	1215	1190	1160	1120	1075	1020	950	880	805
		Red [5]	1035	1005	955	915	875	825	770	715	650	575
1002122	BOTTOM or TWO-SIDES [3,4]	Black	2690	2595	2490	2390	**2280**	**2170**	**2050**	**1930**	**1810**	**1675**
		Yellow	2180	2145	2095	2045	1980	1905	1820	1725	1615	1490
		Orange	1790	1795	1785	1765	1735	1690	1630	1555	1460	1350
		Blue	1640	1640	1635	1620	1595	1565	1510	1450	1365	1270
		Red	1365	1360	1360	1345	1330	1300	1265	1215	1155	1080
1202422	BOTTOM or TWO-SIDES [3,4]	Black	2645	2545	2445	2340	2230	**2110**	**1990**	**1810**	**1685**	**1580**
		Blue	2430	2355	2275	2185	2090	1980	1850	1700	1600	1500
		Yellow	1850	1825	1795	1760	1705	1625	1540	1465	1380	1280
		Orange	1610	1595	1575	1550	1500	1455	1405	1345	1270	1185
		Red [5]	1445	1430	1405	1380	1350	1315	1265	1215	1150	1075

NOTE:

1. A filter is required for each return–air inlet. Airflow performance includes a 3/4 in. (19 mm) washable filter media such as contained in factory–authorized accessory filter rack. See accessory list. To determine airflow performance without this filter, assume an additional 0.1 in. w.c. available external static pressure.
2. Blower speed taps are not always in the same order. Factory Default blower connections are as follows:
   Heating airflow – BLUE (also used for Continuous Fan)
   Cooling airflow – BLACK (enabled when the Y terminal is energized)
   ADJUST THE BLOWER SPEED TAPS AS NECESSARY FOR THE PROPER AIR TEMPERATURE RISE FOR EACH INSTALLATION.
3. Airflows over 1800 CFM require bottom return, two–side return, or bottom and side return. A minimum filter size of 20” x 25” (508 x 635 mm) is required.
4. For upflow applications, air entering from one side into both the side of the furnace and a return air base counts as a side and bottom return.
5. Highlighted areas indicate that this airflow range is beyond the range allowed for heating. **THESE AIRFLOW RANGES MAY ONLY BE USED FOR COOLING.**
6. All airflows that are shown in **BOLD** exceed 0.58 Watts per CFM at the given external static pressure.

ACCESSORIES											
PART NUMBER	COMPONENT NAME	DESCRIPTION	0401410	0401712	0601412	0601716	0801716	0802120	1002116	1002122	1202422
NAHA00101CT	EXTERNAL TRAP KIT	CONDENSATE TRAP	X	X	X	X	X	X	X	X	X
NAHA00110DA	DRAIN ACCESSORY	1/2” CPVC TO 3/4” PVC (10 PACK)	X	X	X	X	X	X	X	X	X
NAHA002CV	VENT TERMINATION KIT	2” CONCENTRIC VENT	X	X	X	X	X	X	X	X	
NAHA001CV		3” CONCENTRIC VENT				X	X	X	X	X	X
NAHA00101VC	INTERNAL VENT KIT	THROUGH THE CABINET	X	X	X	X	X	X	X	X	X
NAHA00301VT	DIRECT VENT TERMINATION KIT	2” BRACKET			X	X	X	X	X	X	
NAHA00401VT		3” BRACKET	X	X	X	X	X	X	X	X	X
NAHA00101CK	INLET AIR PIPE COUPLING	COUPLING FOR POLYPROPYLENE VENT SYSTEMS	X	X	X	X	X	X	X	X	X
NAHA00101HV	HORIZONTAL INSTALLATION KIT	TRAP GROMMET (DIRECT VENT APPLICATION ONLY)	X	X	X	X	X	X	X	X	X
NAHA00101HH	FREEZE PROTECT KIT	CONDENSATE DRAIN LINE – TAPE	X	X	X	X	X	X	X	X	X
NAHA00201HH	CONDENSATE FREEZE PROTECT KIT	CONDENSATE TRAP WITH HEAT PAD	X	X	X	X	X	X	X	X	X
NAHA01101SB	FLOOR BASE KIT	COMBUSTIBLE FLOOR	X	X	X	X	X	X	X	X	X
NAHC00901LP*	GAS CONVERSION KIT	NATURAL TO PROPANE	X	X	X	X	X	X	X	X	X
NAHC00901NG*		PROPANE TO NATURAL	X	X	X	X	X	X	X	X	X
NAHA00101MH*	MANUFACTURED HOME KIT	GAS CONVERSION KIT	X	X	X	X	X	X	X	X	X
NAHA00701WK	TWINNING KIT	OPERATION OF TWO IDENTICAL SIZE MODEL FURNACES			X	X	X	X	X	X	X
NAHA00506FB†	WASHABLE FILTER PACK	WASHABLE FILTER 1” X 16” X 25” (6 PACK)	X	X	X	X	X				
NAHA00706FB		WASHABLE FILTER 1” X 24” X 25” (6 PACK)						X	X	X	X
NAHB00501FF	EXTERNAL BOTTOM FILTER RACK	14” X 25” WASHABLE FILTER INCLUDED	X		X						
NAHB00601FF		17–1/2” X 25” WASHABLE FILTER INCLUDED		X		X	X				
NAHB00701FF		21” X 25” WASHABLE FILTER INCLUDED						X	X	X	
NAHB00801FF		24–1/2” X 25” WASHABLE FILTER INCLUDED									X
NAHA01001FF	SIDE FILTER RACK	16” X 25” RACK – FILTER NOT INCLUDED	X	X	X	X	X	X	X	X	X
NAHA01006FF	SIDE FILTER PACK	16” X 25” (6 PACK)	X	X	X	X	X	X	X	X	X
NAHB00101CA	COIL ADAPTER KIT	WITH NO OFFSET	X	X	X	X	X	X	X	X	X
NAHB00201CA		WITH SINGLE OFFSET	X	X	X	X	X	X	X	X	X
NAHB00301CA		WITH DOUBLE OFFSET	X	X	X	X	X	X	X	X	X
NAHA01401RA	RETURN AIR KIT	14–3/16” WIDE	X	X	X						
NAHA01701RA		17–1/2” WIDE				X	X				
NAHA02101RA		21” WIDE						X	X	X	
NAHA02401RA		24–1/2” WIDE									X
NAHA001NK	CONDENSATE NEUTRALIZER KIT	NEUTRALIZES CONDENSATE	X	X	X	X	X	X	X	X	X

X Accessory available
† Suitable for side return filter rack and 17 inch external bottom filter rack.
* Factory authorized and field installed. Gas conversion kits are CSA recognized.

Part Number	Gas Type	Orifice Size
1185612	Natural	42
1176928	Natural	43
1185574	Natural	44
1177213	Natural	45

Part Number	Gas Type	Orifice Size
1183809	Natural	46
1185613	Natural	47
1185614	Natural	48

Part Number	Gas Type	Orifice Size
1184256	Propane	54
1185615	Propane	55
1185616	Propane	56
1185617	Propane	1.25 mm
1185618	Propane	1.30 mm

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