

TEMPSTAR®

Heating and Cooling Products

F9MXE

SmartComfort® DLX 96

Product Specifications

96% AFUE, Single Stage, ECM Gas Furnace

EASIER TO SELL

- 96% AFUE, all models all positions
- Xtra SEER ECM blower motor
- Supports two-stage cooling units
- Dehumidification feature in cooling
- 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

TOUGHER

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

QUIETER

- Insulated blower compartment

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
- 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 *

- 1 year No Hassle Replacement™ limited warranty
- Lifetime heat exchanger limited warranty with timely registration
- 5 year parts limited warranty

– With timely registration, an additional 5 year parts limited warranty

* Applies to original purchaser/homeowner, some limitations may apply. See warranty certificate for complete details.



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



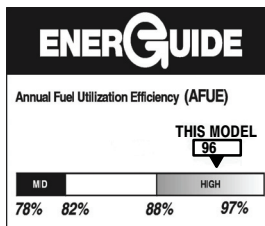
WARNING

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.

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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)
F9MXE0401410A	40,000	96%	385–925	35 x 14-3/16 x 29.5 (889 x 361 x 750)	120 (54)
F9MXE0601714A	60,000	96%	530–1505	35 x 17–1/2 x 29.5 (889 x 445 x 750)	141 (63)
F9MXE0801716A	80,000	96%	920–1610	35 x 17–1/2 x 29.5 (889 x 445 x 750)	151 (68)
F9MXE1002116A	100,000	96%	1155–1720	35 x 21 x 29.5 (889 x 533 x 750)	166 (75)
F9MXE1202422A	120,000	96%	1215–2055	35 x 24–1/2 x 29.5 (889 x 622 x 750)	190 (86)

MODEL NUMBER IDENTIFICATION GUIDE										
DIGIT POSITION	1	2	3	4	5	6,7,8	9,10	11,12	13	14
F = Mainline	F	9	M	X	E	060	14	12	A	1
N = Entry										
9 = 90+% AFUE	EFFICIENCY									
M = Multiposition			POSITION							
A = Modulating ECM Variable Speed Blower										
V = ECM Variable Speed										
X = ECM Blower										
S = Single-stage										
T = Two-stage				TYPE						
C = Commucicating										
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						HEAT INPUT				
14 = 14-3/16"										
17 = 17-1/2"										
21 = 21"										
24 = 24-1/2"							CABINET WIDTH			
08 = 800 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										

ECM—Electronically Commutated Motor

ACCESSORIES PART NUMBER IDENTIFICATION GUIDE											
DIGIT POSITION	1	2	3	4	5, 6, 7	8, 9	10, 11				
N = Non-Branded	N	A	H	A	001	01	DH				
BRANDING		PRODUCT GROUP		KIT USAGE							
A = Accessory											
H = Heating											
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)			0401410A	0601714A	0801716A	1002116A	1202422A
Input	Heat	(BTUH)	40,000	60,000	80,000	100,000	120,000
Output	Heat	(BTUH)	39,000	58,000	78,000	98,000	117,000
Efficiency	AFUE % (ICS)		96				
Certified Temperature Rise Range °F (°C)			40–70(21–38)	40–70(21–38)	40–70(21–38)	40–70(21–38)	40–70(21–38)

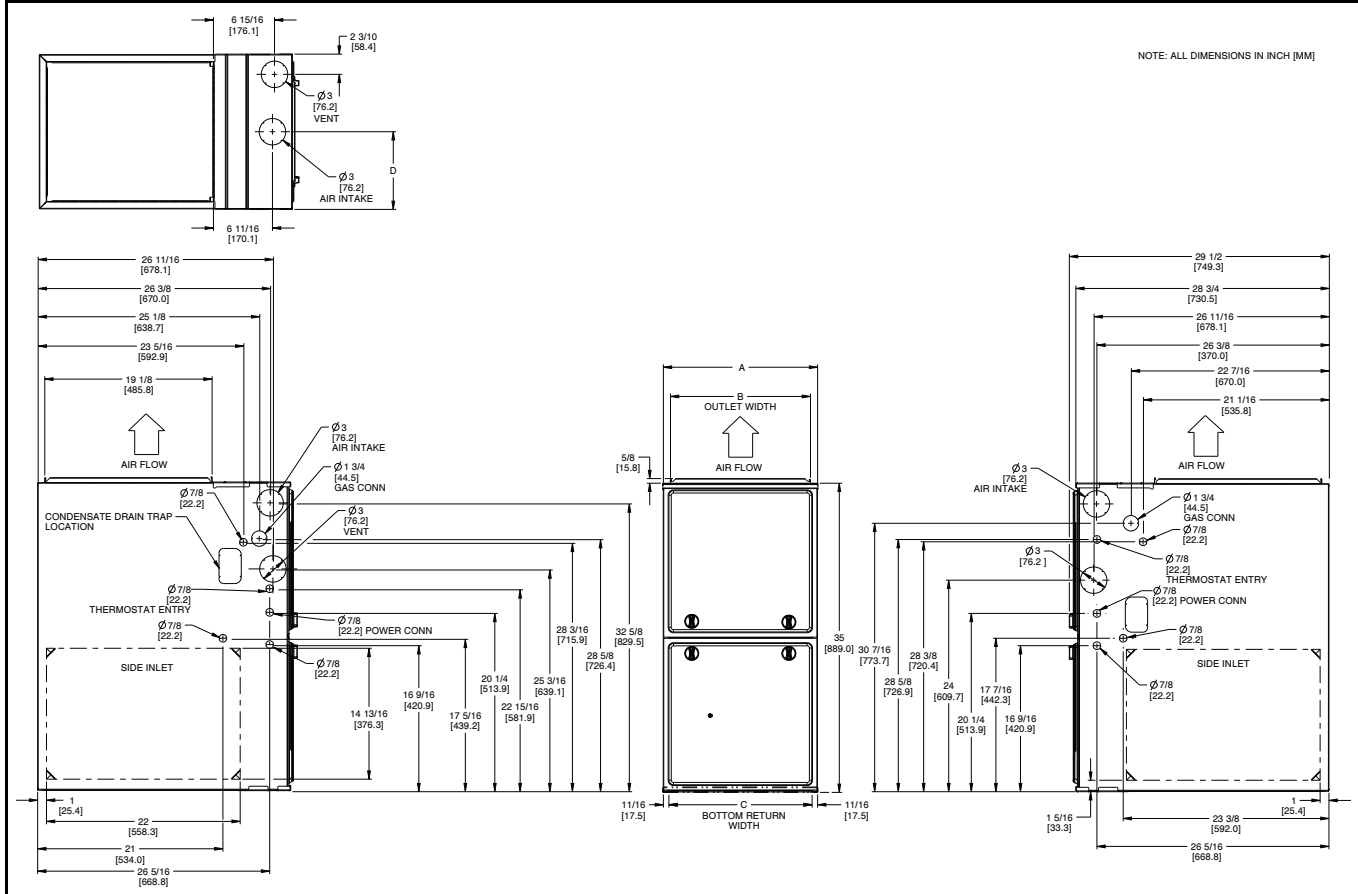
ICS — Isolated Combustion System

AIRFLOW CAPACITY AND BLOWER DATA						
		0401410A	0601714A	0801716A	1002116A	1202422A
Certified External Static Pressure in.w.c.(kPa)	Heating	.10 (.025)	.12 (.030)	.15 (.038)	.20 (.050)	.20 (.050)
	Cooling	.5 (.125)				
Airflow Delivery @ Rated ESP (CFM)	Heating	695	1000	1360	1730	2125
	Cooling	925	1505	1610	1720	2055
Cooling Capacity (tons) @ 400, 350 CFM/ton	400 CFM/ton	2	3.5	4	4	5
	350 CFM/ton	2.5	4	4.5	5	6
Direct-Drive Motor Type		Electronically Commutated Motor ECM				
Direct-Drive Motor HP		1/2	3/4	3/4	1	1
Motor Full Load Amps		6.8	8.4	8.4	10.9	10.9
RPM Range		600 – 1200				
Speed Selections		5				
Blower Wheel Dia x Width	inches	11 x 7	11 x 8	11 x 8	11 x 10	11 x 11
Air Filtration System		Field Supplied				
Filter Used for Certified Watt Data		NAHA00506FB			NAHA00706FB	

CONTROLS						
		0401410A	0601714A	0801716A	1002116A	1202422A
Gas Connection Size		1/2" – NPT				
Burners (Monoport)		2	3	4	5	6
Gas Valve (Redundant)	Manufacturer	White Rogers™				
Minimum Inlet Gas pressure in. w.c. (KPa)		4.5 (1.1)				
Maximum Inlet Gas pressure in. w.c. (KPa)		13.6 (3.4)				
Gas Conversion Kit – Natural to Propane		NAHA00901LP				
Gas Conversion Kit – Propane to Natural		NAHA00901NG				
Manufactured (Mobile) Home Kit		NAHA00101MH				
Ignition Device		Silicon Nitride				
Limit Control		165	180	170	160	160
Heating Blower Control (Heating Off–Delay)		Adjustable: 90, 120, 150, 180 seconds				
Cooling Blower Control (Time Delay Relay)		90 seconds				
Thermostat Connections		R, W, Y1, Y/Y2, G, DHUM, C				
Accessory Connections		EAC (115vac); HUM (24vac); 1–stg AC (via Y/Y2)				

ELECTRICAL DATA						
		0401410A	0601714A	0801716A	1002116A	1202422A
Input Voltage (Volts–Hertz–Phase)		115–60–1				
Operating Voltage Range	Min–Max	104 – 127				
Maximum Input Amps	Amps	8.1	9.7	9.7	12.2	12.2
Unit Ampacity	Amps	11.0	13.0	13.0	16.1	16.1
Minimum Wire Size	AWG	14	14	14	12	12
Maximum Wire Length @ Min Wire Size	Feet (M)	33 (10.1)	28 (8.5)	28 (8.5)	35 (10.7)	35 (10.7)
Maximum Fuse/Circuit Breaker (Time–Delay Type Recommended)	Amps	15	15	15	20	20
Transformer Capacity (24 vac Output)		40 VA				
External Control Power Available	Heating	24.3 VA				
	Cooling	34.6 VA				

UNIT DIMENSIONS



NOTE: Doors may vary by model.

- For 800 CFM 16-in. (406 mm) round or 14 ½ x 12-in. (368 x 305 mm) rectangle.
- For 1200 CFM 20-in. (508 mm) round or 14 ½ x 19 ½-in. (368 x 495 mm) rectangle.
- For 1600 CFM 22-in. (559 mm) round or 14 ½ x 22 1/16-in. (368 x 560 mm) rectangle.
- For airflow requirements above 1800 CFM, see Air Delivery table in Installation Instructions for specific use of single side inlets. The use of both side inlets, a combination of 1 side and the bottom, or the bottom only return air openings may be required for airflow requirements above 1800 CFM at 0.5 in. w.c. ESP

FURNACE SIZE	A CABINET WIDTH inches (mm)	B OUTLET WIDTH inches (mm)	C BOTTOM INLET WIDTH inches (mm)	AIR INTAKE inches (mm)	SHIP WT. LB (KG)
40,000	14 3/16 (361)	12 1/2 (319)	12 9/16 (322)	7 1/8 (181)	120 (54.0)
60,000	17-1/2 (445)	15-7/8 (403)	16 (406)	8 3/4 (222)	141 (63.0)
80,000	17-1/2 (445)	15-7/8 (403)	16 (406)	8 3/4 (222)	151 (68.0)
100,000	21 (533)	19-3/8 (492)	19-1/2 (495)	10 1/2 (267)	166 (74.5)
120,000	24-1/2 (622)	22-7/8 (581)	23 (584)	12 1/4 (311)	190 (85.3)

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)

AIR DELIVERY – CFM (with filter)												
INPUT BTUH	RETURN-AIR SUPPLY	SPEED	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
40,000	SIDE/BOTTOM	5(Gry)	1120	1080	1030	980	925	875	820	760	690	630
		4(Yel)	880	845	810	780	740	710	680	640	615	570
		3(Blu)	695	665	620	575	535	495	455	420	370	280
		2(Org)	640	595	540	495	460	420	370	310	260	230
		1(Red)	570	525	475	425	385	330	255	220	-	-
60,000	SIDE/BOTTOM	5(Gry)	1720	1670	1620	1565	1505	1440	1375	1295	1220	1135
		4(Yel)	1325	1285	1255	1220	1185	1145	1115	1075	1040	1000
		3(Blu)	1010	970	925	875	835	785	745	690	660	620
		2(Org)	1160	1115	1080	1045	1000	960	920	875	840	785
		1(Red)	785	715	655	595	530	490	435	385	340	285
80,000	SIDE/BOTTOM	5(Gry)	1810	1770	1720	1665	1610	1540	1475	1400	1315	1235
		4(Yel)	1535	1500	1475	1435	1405	1370	1340	1310	1245	1160
		3(Blu)	1380	1340	1305	1270	1240	1200	1165	1130	1090	1050
		2(Org)	1180	1130	1095	1060	1015	975	935	895	850	800
		1(Red)	1100	1045	1010	970	920	885	845	790	745	690
100,000	SIDE/BOTTOM	5(Gry)	2040	1970	1885	1795	1720	1635	1540	1450	1360	1230
		4(Yel)	1550	1505	1460	1415	1365	1325	1280	1230	1180	1135
		3(Blu)	1780	1730	1690	1645	1610	1555	1481	1400	1310	1210
		2(Org)	1345	1295	1250	1195	1155	1105	1055	1000	955	915
		1(Red)	1390	1350	1295	1260	1200	1160	1105	1050	1010	965
120,000	BOTTOM OR TWO SIDES	5(Gry)	2275	2230	2185	2130	2055	1950	1825	1710	1610	1500
		4(Yel)	1875	1820	1770	1720	1660	1600	1550	1505	1450	1390
		3(Blu)	2170	2125	2075	2025	1975	1900	1790	1695	1590	1470
		2(Org)	1475	1420	1350	1280	1215	1165	1105	1050	995	930
		1(Red)	1625	1565	1505	1445	1385	1325	1275	1225	1170	1130

ACCESSORIES

PART NUMBER	COMPONENT NAME	DESCRIPTION	0401410	0601714	0801716	1002116	1202422
NAHA00101VC	VENT KIT	THROUGH CABINET	X	X	X	X	X
NAHA002CV	VENT TERM KIT	CONCENTRIC VENT 2"	X	X	X	X	
NAHA001CV	VENT TERM KIT	CONCENTRIC VENT 3"		X	X	X	X
NAHA00110DA	DRAIN ACCESSORY	1/2 INCH CPVC TO 3/4 INCH PVC (10 PACK)	X	X	X	X	X
NAHA00101HV	HORIZONTAL INSTALLATION KIT	TRAP GROMMET	X	X	X	X	X
NAHA00101HH	FREEZE PROTECT KIT	CONDENSATE DRAIN LINE - TAPE	X	X	X	X	X
NAHA00201HH	FREEZE PROTECT KIT	HEAT PATCH FOR DRAIN TRAP	X	X	X	X	X
NAHA01101SB	FLOOR BASE KIT	COMBUSTIBLE FLOOR	X	X	X	X	X
NAHA00901LP*	GAS CONVERSION KIT	NATURAL TO PROPANE	X	X	X	X	X
NAHA00901NG*	GAS CONVERSION KIT	PROPANE TO NATURAL	X	X	X	X	X
NAHA00101MH*	MANUFACTURED HOME KIT	GAS CONVERSION KIT	X	X	X	X	X
NAHA00506FB†	WASHABLE FILTER PACK	WASHABLE FILTER, 1 INCH 16 X 25 (6 PACK)	X	X	X		
NAHA00706FB	WASHABLE FILTER PACK	WASHABLE FILTER, 1 INCH 24 X 25 (6 PACK)				X	X
NAHB00501FF	EXTERNAL BOTTOM FILTER RACK	14 X 25 INCH WASHABLE FILTER INCLUDED	X				
NAHB00601FF	EXTERNAL BOTTOM FILTER RACK	17.5 X 25 INCH WASHABLE FILTER INCLUDED		X	X		
NAHB00701FF	EXTERNAL BOTTOM FILTER RACK	21 X 25 INCH WASHABLE FILTER INCLUDED				X	
NAHB00801FF	EXTERNAL BOTTOM FILTER RACK	24.5 X 25 INCH WASHABLE FILTER INCLUDED					X
NAHA00901FF	ADJUSTABLE SIDE OR BOTTOM FILTER RACK	1 INCH WASHABLE FILTER INCLUDED	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	Part Number	Gas Type	Orifice Size
1185612	Natural	42	1184256	Propane	54
1176928	Natural	43	1185615	Propane	55
1185574	Natural	44	1185616	Propane	56
1177213	Natural	45	1185617	Propane	1.25 mm
1183809	Natural	46	1185618	Propane	1.30 mm
1185613	Natural	47			
1185614	Natural	48			