

R9MSB

Product Specifications

92.1% AFUE, Single Stage, PSC Gas Furnace

EASIER TO SELL

- 92.1% AFUE all models in all positions
- California NOx approved
- Cabinet air leakage less than 2.0% at 1.0 in. W.C. and cabinet air leakage less than 1.4% at 0.5 in. W.C. when tested in accordance with ASHRAE standard 193
- Approved for Manufactured Housing/Mobile Home applications 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

LIMITED WARRANTY *

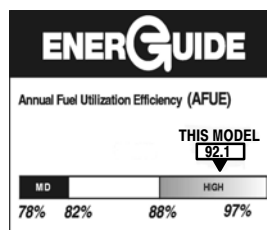
- 20 year heat exchanger limited warranty
- 5 year parts limited warranty
 - With timely registration, an additional 5 year parts limited warranty
- * For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



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)
		Upflow/Hz	Downflow			
R9MSB0601716B	60,000	92.1%	92.1%	985-1505	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	142 (65)
R9MSB0801716A	80,000	92.1%	92.1%	760-1555	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	151 (69)
R9MSB1002120B	100,000	92.1%	92.1%	1475-1970	35 x 21 x 29-1/2 (889 x 533 x 750)	166 (76)
R9MSB1202420B	120,000	92.1%	92.1%	1450-2050	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
	R	9	M	S	B	060	17	14	A	1
R = Non-Branded 9 = 90% - 100%	EFFICIENCY									
M = Multiposition	FEATURE									
S = Single-stage	FEATURE									
B = Base AFUE Efficiency	FEATURE									
060 = 60,000 BTU/hr 080 = 80,000 BTU/hr 100 = 100,000 BTU/hr 120 = 120,000 BTU/hr					INPUT HEAT					
14 = 14-3/16" 17 = 17-1/2" 21 = 21" 24 = 24-1/2"							CABINET WIDTH			
16 = 1600 CFM (max) 20 = 2000 CFM (max) 22 = 2200 CFM (max)									COOLING AIRFLOW	
SALES (MAJOR) REVISION DIGIT										

ACCESSORIES PART NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2	3	4	5, 6, 7	8, 9	10, 11
	N	A	H	B	007	01	FF
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: FF = Filter Kit)							

Heating Capacity and Efficiency						
Model Size			0601716B	0801716A	1002120B	1202420B
Input	Heat	(BTUH)	60,000	80,000	100,000	120,000
Output	Heat	(BTUH)	56,000	75,000	93,000	112,000
Efficiency	Upflow/Hz AFUE % (ICS)		92.1			
	Downflow AFUE % (ICS)		92.1			
Certified Temperature Rise Range °F (°C)		Heat	35-65(19-36)	35-65(19-36)	40 - 70(22 - 39)	45 - 75(25 - 42)

Airflow Capacity and Blower Data						
Model Size			0601716B	0801716A	1002120B	1202420B
Rated External Static Pressure in. w.c.(kPa)	Heating		0.12 (.05)	0.15 (.38)	0.20 (.050)	0.20 (.050)
	Cooling		0.5 (.125)			
Airflow Delivery @ Rated ESP (CFM)	Heat		980	1030	1550	2070
	Cooling		1505	1555	1970	2080
Cooling Capacity (tons) @ 400, 350 CFM/ton	CFM/ton		3.5	4	5	5
	CFM/ton		4	4.5	5+	5+
Direct-Drive Motor Type			Permanent Split Capacitor (PSC)			
Direct-Drive Motor HP			0.5	0.5	0.75	0.75
Motor Full Load Amps			7.9	7.9	11.1	11.1
RPM Range			500-1150			
Speed Selections			4	5	4	4
Blower Wheel Dia x Width		in.	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	

Electrical Data						
Model Size			0601716B	0801716A	1002120B	1202420B
Input Voltage	Volts-Hertz-Phase		115-60-1			
Operating Voltage Range	Min-Max		104-127			
Maximum Input Amps	Amps		8.6	8.1	11.9	11.9
Unit Ampacity	Amps		11.7	11.1	15.8	15.8
Minimum Wire Size	AWG		14	14	12	12
Maximum Wire Length @ Minimum Wire Size	Feet		31	33	36	36
	(M)		(9.4)	(10.1)	(11.0)	(11.0)
Maximum Fuse/Ckt Bkr (Time-Delay Type Recommended)	Amps		15	15	20	20
Transformer Capacity (24vac output)			24 VAC Output / 40 VA			
External Control Power Available	Heating		27.9 VA			
	Cooling		34.6 VA			

Controls						
Model Size			0601716B	0801716A	1002120B	1202420B
Gas Connection Size			1/2" - NPT			
Burners (Monoport)			3	4	5	6
Gas Valve (Redundant)	Manufacturer		White Rodgers™			
Minimum Inlet Gas pressure (in. wc)			4.5			
Maximum Inlet Gas pressure (in. wc)			13.6			
Manufactured (Mobile) Home Kit			NAHB00101MH			
Ignition Device			Silicon Nitride			
Limit Control			190	185	220	165
Heating Blower Control (Htg Off-Delay)			Adjustable: 90, 120, 150, 180 seconds			
Cooling Blower Control (Time Delay Relay)			90 seconds			
Thermostat Connections			C, R, W, G, Y			
Accessory Connections			EAC (115vac); HUM (24vac)			

FURNACE SIZE	A	B	C	D	SHIP WT. LB (KG)
	CABINET WIDTH	OUTLET WIDTH	BOTTOM INLET WIDTH	AIR INTAKE	
0601716B	17-1/2 (445)	15-7/8 (403)	16 (406)	8-3/4 (222)	142 (65)
0801716A	17-1/2 (445)	15-7/8 (403)	16 (406)	8-3/4 (222)	151 (69)
1002120B	21 (533)	19-3/8 (492)	19-1/2 (495)	10-1/2 (267)	167 (76)
1202420B	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.

SIZE	RETURN AIR CONNECTION	WIRE LEAD COLOR	COOLING TONS	CFM /TON	TEST AIRFLOW DELIVERY @ VARIOUS EXTERNAL STATIC PRESSURES									
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
0601716B	SIDE/BOTTOM	Black	4.0	376	1600	1545	1505	1475	1505	1445	1400	1330	1235	1140
		Yellow	3.5	377	1380	1340	1335	1330	1320	1285	1225	1155	1085	1000
		Blue ³	3.0	387	1190	1185	1195	1195	1160	1125	1075	1015	950	885
		Red ³	2.5	394	1030	1025	1030	1010	985	940	905	855	805	735
0801716A (A Series Only)	SIDE/BOTTOM	Black	4.0	408	1800	1770	1735	1685	1630	1570	1495	1415	1330	1230
		Yellow	3.5	386	1445	1430	1410	1385	1350	1305	1255	1195	1120	1045
		Orange	3.0	390	1250	1240	1225	1200	1170	1130	1090	1040	975	910
		Blue	2.5	404	1090	1080	1060	1035	1010	970	930	885	835	765
		Red ³	2.0	390	880	860	835	810	780	750	710	665	615	560
1002120B	BOTTOM or TWO-SIDES ^{4,5}	Black	5.0	394	2270	2205	2130	2055	1970	1880	1780	1670	1555	1425
		Yellow	5.0	367	2090	2040	1980	1910	1835	1755	1670	1570	1460	1340
		Blue	4.0	416	1850	1815	1775	1725	1665	1600	1525	1435	1335	1225
		Red	3.5	421	1580	1550	1540	1515	1475	1420	1355	1280	1190	1100
1202420B	BOTTOM or TWO-SIDES ^{4,5}	Black	5.0	410	2385	2310	2230	2150	2050	1920	1780	1650	1540	1415
		Yellow	5.0	369	2130	2070	2010	1940	1845	1740	1630	1525	1420	1305
		Blue	4.0	416	1875	1840	1795	1735	1665	1580	1495	1410	1310	1205
		Red ³	3.5	414	1610	1585	1555	1515	1450	1395	1325	1250	1160	1080

NOTES:

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. **ADJUST THE BLOWER SPEED TAPS AS NECESSARY FOR THE PROPER AIR TEMPERATURE RISE FOR EACH INSTALLATION.**
3. Shaded areas indicate that this airflow range is BELOW THE RANGE ALLOWED FOR HEATING OPERATION. THESE AIRFLOW RANGES MAY ONLY BE USED FOR COOLING.
4. Airflow over 1800 CFM require bottom return, two-side return, or bottom and side return. A minimum filter size of 20" x 25" is required.
5. 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.
6. All airflow that are shown in **BOLD** exceed 0.58 Watts per CFM at the given external static pressure.

ACCESSORIES						
PART NUMBER	COMPONENT NAME	DESCRIPTION	0601716	0801716	1002120	1202420
NAHB00101CT	EXTERNAL TRAP KIT	CONDENSATE TRAP	X	X	X	X
NAHA00110DA	DRAIN ACCESSORY	1/2" CPVC TO 3/4" PVC (10 PACK)	X	X	X	X
NAHA002CV	VENT TERMINATION KIT	2" CONCENTRIC VENT	X	X	X	
NAHA001CV		3" CONCENTRIC VENT	X	X	X	X
NAHA00101VC	INTERNAL VENT KIT	THROUGH THE CABINET	X	X	X	X
NAHA00301VT	DIRECT VENT TERMINATION KIT	2" BRACKET	X	X	X	
NAHA00401VT		3" BRACKET	X	X	X	X
NAHA00101CK	INLET AIR PIPE COUPLING	COUPLING FOR POLYPROPYLENE VENT SYSTEMS	X	X	X	X
NAHA00101HV	HORIZONTAL INSTALLATION KIT	TRAP GROMMET (DIRECT VENT APPLICATION ONLY)	X	X	X	X
NAHA00101HH	FREEZE PROTECT KIT	CONDENSATE DRAIN LINE - TAPE	X	X	X	X
NAHA00201HH	CONDENSATE FREEZE PROTECT KIT	CONDENSATE TRAP WITH HEAT PAD	X	X	X	X
NAHA01101SB	FLOOR BASE KIT	COMBUSTIBLE FLOOR	X	X	X	X
NAHD00901LP*	GAS CONVERSION KIT	NATURAL TO PROPANE	X	X	X	X
NAHD00901NG*		PROPANE TO NATURAL	X	X	X	X
NAHB00101MH*	MANUFACTURED HOME KIT	GAS CONVERSION KIT	X	X	X	X
NAHA00506FB†	WASHABLE FILTER PACK	WASHABLE FILTER 1" X 16" X 25" (6 PACK)	X	X		
NAHA00706FB		WASHABLE FILTER 1" X 24" X 25" (6 PACK)			X	X
NAHB00601FF	EXTERNAL BOTTOM FILTER RACK	17-1/2" X 25" WASHABLE FILTER INCLUDED	X	X		
NAHB00701FF		21" X 25" WASHABLE FILTER INCLUDED			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
NAHB00101CA	COIL ADAPTER KIT	WITH NO OFFSET	X	X	X	X
NAHB00201CA		WITH SINGLE OFFSET	X	X	X	X
NAHB00301CA		WITH DOUBLE OFFSET	X	X	X	X
NAHA01701RA	RETURN AIR KIT	17-1/2" WIDE	X	X		
NAHA02101RA		21" WIDE			X	
NAHA02401RA		24-1/2" WIDE				X
NAHA001NK	CONDENSATE NEUTRALIZER KIT	NEUTRALIZES CONDENSATE	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