

# AMH95 Gas Furnace

# **UP TO 95% AFUE**

HEATING INPUT: 46,000-115,000 BTU/h

### **Standard Features**

- MillionAir<sup>®</sup> stainless-steel, dual-diameter tubular heat exchanger
- Two-stage gas valve with convertible technology that allows installer to activate the two-stage valve with the flip of a dipswitch
- SureStart<sup>®</sup> Silicon Nitride igniter designed for long igniter life
- Furnace control board with self-diagnostics, colorcoded low-voltage terminals, and provisions for electronic air cleaner and 24-volt humidifiers
- Control board stores the last five diagnostic codes in memory; simple push-button activation outputs the fault history to a flashing red LED
- Low constant fan allows homeowner to activate the low heat speed to efficiently circulate air throughout the home
- Self-adjusting feature automatically adjusts to highor low-stage operation based on outside temperature without an outdoor temperature sensor
- Dual-certified for sealed combustion direct vent (2-pipe) or non-direct vent (1-pipe) applications
- Easy-to-install top venting is standard; alternate flue/vent located on the right
- All models comply with California NOx emissions standards

### **Cabinet Features**

- Fully insulated, heavy-gauge steel cabinet with durable bakedenamel finish
- Designed for multi-position installation: upflow, horizontal left or right
- Airtight solid bottom for side return applications and easy-cut tabs for effortless removal in bottom air inlet applications
- Convenient left/right connection for gas/electric service
- Coil and furnace fit flush for most installation





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\* To receive the Lifetime Unit Replacement Limited Warranty and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec. Full warranty details available at <u>www.amana-hac.com</u>.

### Nomenclature



**Important EnergyStar Notice:** EnergyStar ratings are dependent upon conditions beyond equipment installation. Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet EnergyStar criteria. Ask your contractor for details or visit www.energystar.gov.

### **SPECIFICATIONS**

	AMH95 0453BXA	AMH95 0703BXA	AMH95 0704CXA	AMH95 0904CXA	AMH95 0905CXA	AMH95 1155DXA
HEATING CAPACITY						
Input <sup>1</sup>	46,000	69,000	69,000	92,000	92,000	115,000
Natural Gas Output <sup>1</sup>	44,600	66,400	66,400	89,000	88,400	110,500
LP Gas Output <sup>1</sup>	39,330	58,995	58,995	78,660	78,660	98,325
AFUE <sup>2</sup>	95	95	95	95	95	95
Available AC @ 0.5" ESP	3	3	4	4	5	5
Temperature Rise Range (°F)	35 - 65	30 - 60	35 - 65	30 - 60	30 - 60	35 - 65
CIRCULATOR BLOWER						
Size (D x W)	10" X 8"	10" X 8"	10" X 10"	10" X 10"	11" X 10"	11" X 10"
Horsepower @ 1750 RPM	⅓	⅓	1/2	1/2	3/4	3⁄4
Speed	4	4	4	4	4	4
Vent Diameter <sup>3</sup>	2″	2″	2″	2″	3″	3″
No. of Burners	2	3	3	4	4	5
Disposable Filter Size (in <sup>2</sup> )	580	580	770	770	960	960
ELECTRICAL DATA						
Min. Circuit Ampacity <sup>4</sup>	9.4	9.4	13.8	13.8	13.2	13.2
Max. Overcurrent Device (amps) 5	15	15	15 15		15	15
Ship Weight (LBS)	132	135	136	158	172	175

<sup>1</sup> Natural Gas BTU/h. For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level. Low-fire rate is 75% of high-fire rate

<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS)

<sup>3</sup> Vent and combustion air diameters may vary depending upon vent length. Refer to the latest editions of the National Fuel Gas Code NFPA 54/ANSI Z223.1 (in the USA) and the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2 (in Canada).

<sup>4</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

<sup>5</sup> Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

#### Notes

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

### DIMENSIONS



MODEL	А	В	С	D	E
AMH950453BXA	17½"	16"	131⁄8″	121⁄8″	13%"
AMH950703BXA	17½"	16"	131⁄8″	121⁄8″	13⁵%″
AMH950704CXA	21″	19½"	161⁄8″	16"	17½"
AMH950904CXA	21″	19½"	161⁄8″	16"	17½"
AMH950905CXA	21"	19½"	16½"	16"	17½"
AMH951155DXA	24½"	23"	205⁄8″	19¾"	20%"

#### NOTES:

 Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run, and installation (1 or 2 pipes). The optional combustion air pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

• Line voltage wiring can enter through the right or left side of furnace. Low-voltage wiring can enter through the right or left side of furnace.

• Conversion kits for high-altitude natural gas operation are available. Contact your Amana distributor or dealer for details.

 Installer must supply the following gas line fittings, according to which entrance is used: Left: One 90<sup>o</sup> street elbow; one 2½" pipe nipple; one 90<sup>o</sup> elbow; straight pipe; one ground joint union Right: Straight pipe to reach gas valve

Installations using a bottom return: Failure to unfold flanges will reduce airflow area by approximately 18%. This could result
in performance and noise issues.

### MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

POSITION	SIDES	Rear	Front	Воттом	FLUE	Тор
Upflow	0"	0"	1″	С	0"	1″
Horizontal	6"	0"	1″	С	0"	4"

C = If placed on combustible floor, the floor MUST be wood ONLY.

NOTES

- For servicing or cleaning, a 24" front clearance is recommended.
- Unit connections (electrical, flue, and drain) may necessitate greater clearances than the minimum clearances listed above.
- In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.
- Approved for line contact in the horizontal position.

## **AIRFLOW DATA**

			External Static Pressure, (Inches Water Column)												
MODEL	MOTOR I SPEED	OTOR TONS	0.1		0.2		0.3		0.4		0.5		0.6	0.7	0.8
	SFEED	P	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	CFM	CFM
	High	3	1,352	29	1,318	30	1,260	31	1,202	33	1,128	35	1,044	955	853
AMH95	Med	2.5	1,214	32	1,172	34	1,123	35	1,064	37	1,012	39	938	859	741
0453BXA	Med-Lo	2	997	40	994	40	960	41	923	43	884	45	817	741	611
	Low	1.5	757	52	753	52	734	54	704	56	674	59	620	524	438
	High	3	1,449	41	1,409	42	1,326	45	1,273	47	1,201	49	1,194	1,136	1,018
AMH95	Med	2.5	1,192	50	1,172	51	1,141	52	1,094	54	1,046	57	973	904	793
0703BXA	Med-Lo	2	981	61	962	62	943	63	917	65	888	67	830	764	665
	Low	1.5	750	79	730	81	714	83	692	86	657	90	620	570	502
	High	4	2,069	29	1,965	30	1,871	32	1,756	34	1,661	36	1,549	1,415	1,275
AMH95	Med	3.5	1,752	34	1,724	34	1,667	36	1,603	37	1,488	40	1,402	1,290	1,082
0704CXA	Med-Lo	3	1,437	41	1,437	41	1,417	42	1,369	43	1,320	45	1,256	1,140	984
	Low	2.5	1,184	50	1,177	50	1,161	51	1,132	52	1,095	54	1,047	928	837
	High	4	1,970	40	1,874	42	1,757	45	1,667	48	1,566	51	1,431	1,334	1,182
AMH95	Med	3.5	1,713	46	1,650	48	1,572	50	1,510	52	1,418	56	1,313	1,211	1,079
0904CXA	Med-Lo	3	1,439	55	1,412	56	1,370	58	1,327	60	1,260	63	1,166	1,078	956
	Low	2.5	1,183	67	1,155	69	1,122	71	1,108	72	1,062	75	1,011	931	816
	High	5	2058	39	1997	40	1928	42	1852	43	1777	45	1682	1600	1487
AMH95	Med	4	1718	47	1685	48	1632	49	1586	51	1520	53	1458	1369	1281
0905CXA	Med-Lo	3.5	1502	54	1464	55	1429	56	1380	58	1319	61	1272	1200	1137
	Low	3	1305	62	1277	63	1253	64	1212	66	1175	69	1127	1081	1010
	High	5	2,134	46	2,103	47	2,029	48	1,941	51	1,906	51	1,818	1,733	1,625
AMH95	Med	4	1,678	58	1,643	60	1,643	60	1,577	62	1,527	64	1,489	1,423	1,339
1155DXA	Med-Lo	3.5	1,453	68	1,440	68	1,426	69	1,363	72	1,349	73	1,314	1,253	1,205
	Low	3	1,259	78	1,239	79	1,220	80	1,181	83	1,159	85	1,118	1,082	1,015

#### (CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE)

1 at 0.5" ESP

NOTES

• CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.

• All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling & heating speed as needed.

• For most jobs, about 400 CFM per ton when cooling is desirable.

INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.

• This chart is for information only. For satisfactory operation, external static pressure should not exceed value shown on the rating plate. The shaded area indicates ranges in excess of maximum static pressure allowed when heating.

• The above chart is for U.S. furnaces installed at 0-2000 feet. At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.

# WIRING DIAGRAMS WITH HONEYWELL VALVE



### WIRING DIAGRAMS WITH WHITE-RODGERS VALVE





N



# TwinComfort<sup>™</sup> Configuration & Operation



### ACCESSORIES

MODEL	DESCRIPTION	AMH95 0453B**	AMH95 0703B**	AMH95 0704C**	AMH95 0904C**	AMH95 0905C**	AMH95 1155D**
LPM-05	LP Conversion Kit (Springs & Orifice) <sup>1</sup>	٧	V	V	٧	٧	٧
LPM-06	LP Conversion Kit (Springs & Orifice) <sup>2</sup>	٧	V	V	٧	٧	٧
LPLP01	LP Gas Low Pressure Kit	٧	V	V	٧	٧	V
FTK04	Twinning Kit	٧	V	V	٧	٧	٧
ASAS	Electronic Air Cleaners	٧	٧	v	٧	٧	V
AMU	Media Air Cleaners	٧	V	v	٧	٧	٧
HANG11	High Altitude Natural Gas Kit	1	1	1	1		1
HANG12	High Altitude Natural Gas Kit	2	2	2	2		2
HALP10	High Altitude LP Gas Kit	3	3	3	3		3
HAPS27	High Altitude Pressure Switch Kit	3	3	3	3		3
EFR01	External Filter Rack	٧	٧	v	٧	٧	٧
DCVK-20	Horizontal/Vertical Concentric Vent Kit (2")	٧	V				
DCVK-30	Horizontal/Vertical Concentric Vent Kit (3")	٧	V	v	٧	٧	٧
017K00000S	Flush-mount Vent Kit	٧	V	V	٧	٧	V

<sup>1</sup> White-Rodgers valve only

<sup>2</sup> White-Rodgers and Honeywell valves

NOTES

Indicates available for this model v

1 Indicates 7,001' to 9,000' altitude

2 Indicates 9,001' to 11,000' altitude

3 Indicates 7,001' to 11,000' altitude

• All installations above 7,000' require a pressure switch change. • For installation in Canada, gas furnaces are certified only to 4,500'.

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