Heating & Air Conditioning
Amana®

AMVC8/ADVC8

Two-Stage, Variable Speed Gas Furnace

80% AFUE

Heating Input: 70,000–115,000 BTU/h

Standard Features

- MillionAir® stainless-steel, dual-diameter tubular heat exchanger
- Two-stage gas valve operates on two-stage or single-stage thermostats
- ComfortNet™ Communications System compatible
- Efficient and quiet variable-speed ECM circulator motor gently ramps up or down according to heating or cooling demand
- SureStart® Silicon Nitride igniter designed for long igniter life
- Furnace control board with self-diagnostics, color-coded low-voltage terminals, and provisions for electronic air cleaner and 120-volt or 24-volt humidifiers
- Low constant fan speed allows homeowner to activate a very low speed to efficiently circulate air throughout the home. This setting costs as little as a 100-watt light bulb to operate.
- Quiet, two-speed induced draft blower
- All models comply with California NOx emissions standards

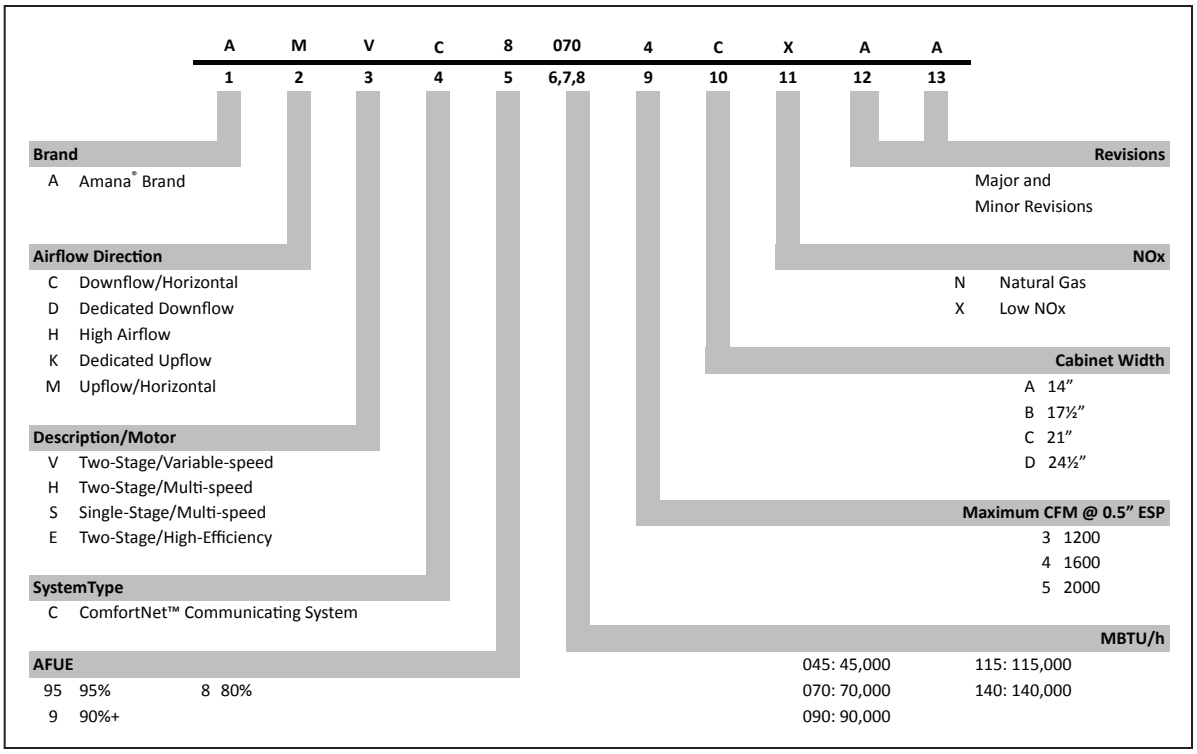
Cabinet Features

- Fully insulated, heavy-gauge steel cabinet with durable baked-enamel finish
- Designed for multi-position installation: upflow, horizontal left or right
- Removable bottom for side- or bottom-return applications
- Convenient left or right connection for gas/electric service
- Coil and furnace fit flush for most installations

Contents

* Complete warranty details available from your local dealer or at www.amana-hac.com. To receive the Lifetime Unit Replacement Limited Warranty and Lifetime Heat Exchanger Limited Warranty (in both cases, good for as long as you own your home) plus the 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

NOMENCLATURE



Specifications

	AMVC8 0704BX*	AMVC8 0905CX*	AMVC8 1155CX*	ADVC8 0703BX*	ADVC8 0905CX*	ADVC8 1155CX*
Heating Capacity						
High Fire Input (BTU/h)[1]	70,000	90,000	115,000	70,000	90,000	115,000
High Fire Output (BTU/h)[1] (below)						
Natuarl Gas	57,000	74,000	93,000	57,000	74,000	93,000
LP Gas	50,400	64,000	82,000	50,400	64,000	82,000
Low Fire Input (BTU/h)[1]	49,000	63,000	80,000	49,000	63,000	80,000
Low Fire Output (BTU/h)[1] (below)						
Natuarl Gas	39,200	50,400	64,000	39,200	50,400	64,000
LP Gas	39,200	50,400	64,000	39,200	50,400	64,000
AFUE2	80	80	80	80	80	80
Available AC @ 0.5" ESP	1.5 - 3.0	2.0 - 5.0	2.0 - 5.0	1.5 - 3.0	2.0 - 5.0	2.0 - 5.0
Temperature Rise Range (° F)	20 - 50	20 - 50	25 - 55	30-60	30-60	35-65
Circulator Blower						
Size (D x W)	10" x 8"	10" x 10"	10" x 10"	10" x 8"	10" x 10"	10" x 10"
Horsepower - RPM	¾	¾	¾	¾	¾	¾
Speed	Variable			Variable		
Vent Diameter[2]	4"	4"	4"	4"	4"	4"
No. of Burners	3	4	5	3	4	5
Disposable Filter Size (in²)	818	960	960	713	960	960
Electrical Data						
Min. Circuit Ampacity[3]	12.1	12.1	12.1	12.1	12.1	12.1
Max. Overcurrent Device (amps)[4]	15	15	15	15	15	15
Ship Weight (lbs)	138	156	158	155	177	179

1 Natural Gas BTU/h. For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level.

2 DOE AFUE based upon Isolated Combustion System (ICS)

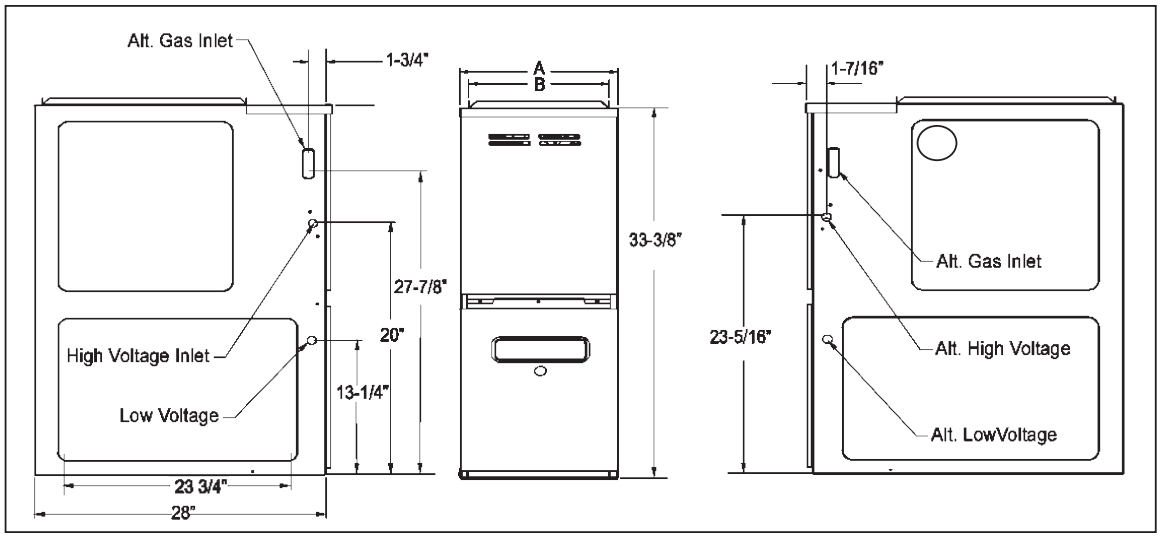
3 Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

4 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.

AMVC8 Dimensions



Minimum Clearances to Combustible Materials

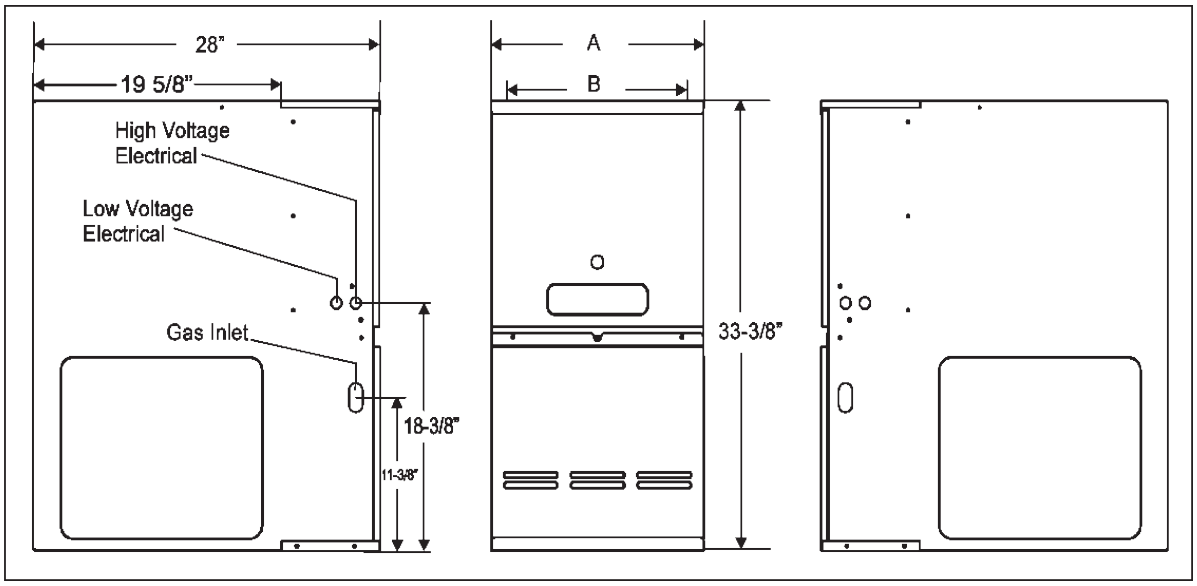
Sides	Rear	Front[1]	Vent[2]		Top
			SW	B	
1	0	3	6	1	1

See Notes below.

Dimensions

Model	A	B
AMVC80704BX	17½"	16"
AMVC80905CX	21"	19½"
AMVC81155CX	21"	19½"

ADVC8 Dimensions



Minimum Clearances to Combustible Materials

Sides	Rear	Front[1]	Vent[2]		Top
			SW	B	
1	0	3	6	1	1

Dimensions

Model	A	B
ADVC80703BX	17½"	16"
ADVC80905CX	21"	19½"
ADVC81155CX	21"	19½"

Approved for line contact in the horizontal position.

[1] 24" clearance for serviceability recommended.

[2] Single Wall Vent (SW) to be used only as a connector. Refer to the venting tables outlined in the Installation Manual for additional venting requirements.

AMVC8 Airflow Data

High- or Single-Stage Cooling Speeds

AMVC80704BX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	540
	Normal	600
	Plus (+)	660
B	Minus (-)	720
	Normal	800
	Plus (+)	880
C	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
D	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540

AMVC80905CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

AMVC81155CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

Low-Stage Cooling Speeds

AMVC80704BX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	351
	Normal	390
	Plus (+)	429
B	Minus (-)	468
	Normal	520
	Plus (+)	572
C	Minus (-)	644
	Normal	715
	Plus (+)	787
D	Minus (-)	819
	Normal	910
	Plus (+)	1,001

AMVC80905CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

AMVC81155CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

[1] @ .1" to .8" W.C. ESP

Notes

- These charts are for furnaces installed at 0' - 2,000'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- THE INSTALLATION IS TO BE ADJUSTED TO OBTAIN A TEMPERATURE RISE WITHIN THE RANGE LISTED ON THE FURNACE NAMEPLATE.
- Propane gas installations will have a high-stage rise approximately 4° lower than shown in the tables.

AMVC8 Airflow Data (cont.)

Heating Speeds

AMVC80704BX (Rise Range: 20° - 50°F)				
Cooling Speed Tap	Adjust Tap	Low-Stage CFM[1]	High-Stage CFM[1]	Rise (°F)
A	Minus (-)	790	1125	46
	Normal	875	1250	41
	Plus (+)	960	1375	38
B	Minus (-)	850	1215	43
	Normal	945	1350	38
	Plus (+)	1040	1485	35
C	Minus (-)	915	1305	40
	Normal	1015	1450	36
	Plus (+)	1115	1595	33
D	Minus (-)	975	1395	37
	Normal	1085	1550	33
	Plus (+)	1195	1705	30

AMVC80905CX (Rise Range: 20° - 50°F)				
Cooling Speed Tap	Adjust Tap	Low-Stage CFM[1]	High-Stage CFM[1]	Rise (°F)
A	Minus (-)	945	1350	49
	Normal	1050	1500	44
	Plus (+)	1155	1650	40
B	Minus (-)	1010	1440	46
	Normal	1120	1600	42
	Plus (+)	1230	1760	38
C	Minus (-)	1070	1530	44
	Normal	1190	1700	39
	Plus (+)	1310	1870	36
D	Minus (-)	1135	1620	41
	Normal	1260	1800	37
	Plus (+)	1385	1980	34

[1] @ .1" to .8" W.C. ESP

AMVC81155CX (Rise Range: 25° - 55°F)				
Cooling Speed Tap	Adjust Tap	Low-Stage CFM[1]	High-Stage CFM[1]	Rise (°F)
A	Minus (-)	1090	1555	55
	Normal	1210	1725	49
	Plus (+)	1330	1900	45
B	Minus (-)	1105	1575	54
	Normal	1225	1750	49
	Plus (+)	1350	1925	44
C	Minus (-)	1120	1600	53
	Normal	1245	1775	48
	Plus (+)	1370	1955	44
D	Minus (-)	1135	1620	53
	Normal	1260	1800	47
	Plus (+)	1385	1980	43

Notes

- These charts are for furnaces installed at 0' - 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.
- Do not operate above .5" w.c. ESP in heating mode.
- Propane gas installations will have a high-stage rise approximately 4° lower than shown in the tables.

Continous Fan Speeds

Model	Furnace Maximum CFM	Continuous Fan Speed[1,2]
AMVC80704BX	1760	530
AMVC80905CX	2000	600
AMVC81155CX	2000	600

[1] Continuous fan speed is 30% of furnace maximum CFM

[2] Three continuous fan speeds are possible with the CTK01AA thermostat: 30%, 50%, and 70% of furnace maximum CFM

ADVC8 Airflow Data

High- or Single-Stage Cooling Speeds

ADVC80703BX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	540
	Normal	600
	Plus (+)	660
B	Minus (-)	720
	Normal	800
	Plus (+)	880
C	Minus (-)	900
	Normal	1,000
	Plus (+)	1,100
D	Minus (-)	1,080
	Normal	1,200
	Plus (+)	1,320

ADVC80905CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

ADVC81155CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	765
	Normal	850
	Plus (+)	935
B	Minus (-)	1,035
	Normal	1,150
	Plus (+)	1,265
C	Minus (-)	1,305
	Normal	1,450
	Plus (+)	1,595
D	Minus (-)	1,665
	Normal	1,850
	Plus (+)	2000*

Low-Stage Cooling Speeds

ADVC80703BX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	351
	Normal	390
	Plus (+)	429
B	Minus (-)	468
	Normal	520
	Plus (+)	572
C	Minus (-)	585
	Normal	650
	Plus (+)	715
D	Minus (-)	702
	Normal	780
	Plus (+)	858

ADVC80905CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

ADVC81155CX		
Cooling Speed Tap	Adjust Tap	CFM[1]
A	Minus (-)	497
	Normal	553
	Plus (+)	608
B	Minus (-)	673
	Normal	748
	Plus (+)	822
C	Minus (-)	848
	Normal	943
	Plus (+)	1,037
D	Minus (-)	1,082
	Normal	1,203
	Plus (+)	1,323

[1] @ .1" to .8" W.C. ESP

Notes

- These charts are for furnaces installed at 0' - 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- THE INSTALLATION MUST BE ADJUSTED TO OBTAIN A TEMPERATURE RISE WITHIN THE RANGE LISTED ON THE FURNACE NAMEPLATE.
- Propane gas installations will have a high-stage rise approximately 4° lower than shown in the tables.

ADVC8 Airflow Data (cont.)

Heating Speeds

ADVC80703BX (Rise Range: 30° - 60°F)				
Cooling Speed Tap	Adjust Tap	Low-Stage CFM[1]	High-Stage CFM[1]	Rise (°F)
A	Minus (-)	660	945	55
	Normal	735	1050	49
	Plus (+)	810	1155	45
B	Minus (-)	725	1035	50
	Normal	805	1150	45
	Plus (+)	885	1265	41
C	Minus (-)	790	1125	46
	Normal	875	1250	41
	Plus (+)	960	1375	38
D	Minus (-)	850	1215	43
	Normal	945	1350	38
	Plus (+)	1040	1485	35

ADVC80905CX (Rise Range: 30° - 60°F)				
Cooling Speed Tap	Adjust Tap	Low-Stage CFM[1]	High-Stage CFM[1]	Rise (°F)
A	Minus (-)	850	1215	55
	Normal	945	1350	49
	Plus (+)	1040	1485	45
B	Minus (-)	915	1305	51
	Normal	1015	1450	46
	Plus (+)	1115	1595	42
C	Minus (-)	975	1395	48
	Normal	1085	1550	43
	Plus (+)	1195	1705	39
D	Minus (-)	1040	1485	45
	Normal	1155	1650	40
	Plus (+)	1270	1815	37

ADVC81155CX (Rise Range: 35° - 65°F)				
Cooling Speed Tap	Adjust Tap	Low-Stage CFM[1]	High-Stage CFM[1]	Rise (°F)
A	Minus (-)	975	1395	61
	Normal	1085	1550	55
	Plus (+)	1195	1705	50
B	Minus (-)	1040	1485	57
	Normal	1155	1650	52
	Plus (+)	1270	1815	47
C	Minus (-)	1105	1575	54
	Normal	1225	1750	49
	Plus (+)	1350	1925	44
D	Minus (-)	1135	1620	53
	Normal	1260	1800	47
	Plus (+)	1385	1980	43

[1] @ .1" to .8" W.C. ESP

Notes

- These charts are for furnaces installed at 0'- 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.
- Do not operate above .5" w.c. ESP in heating mode.
- Propane gas installations will have a high-stage rise approximately 4° lower than shown in the tables.

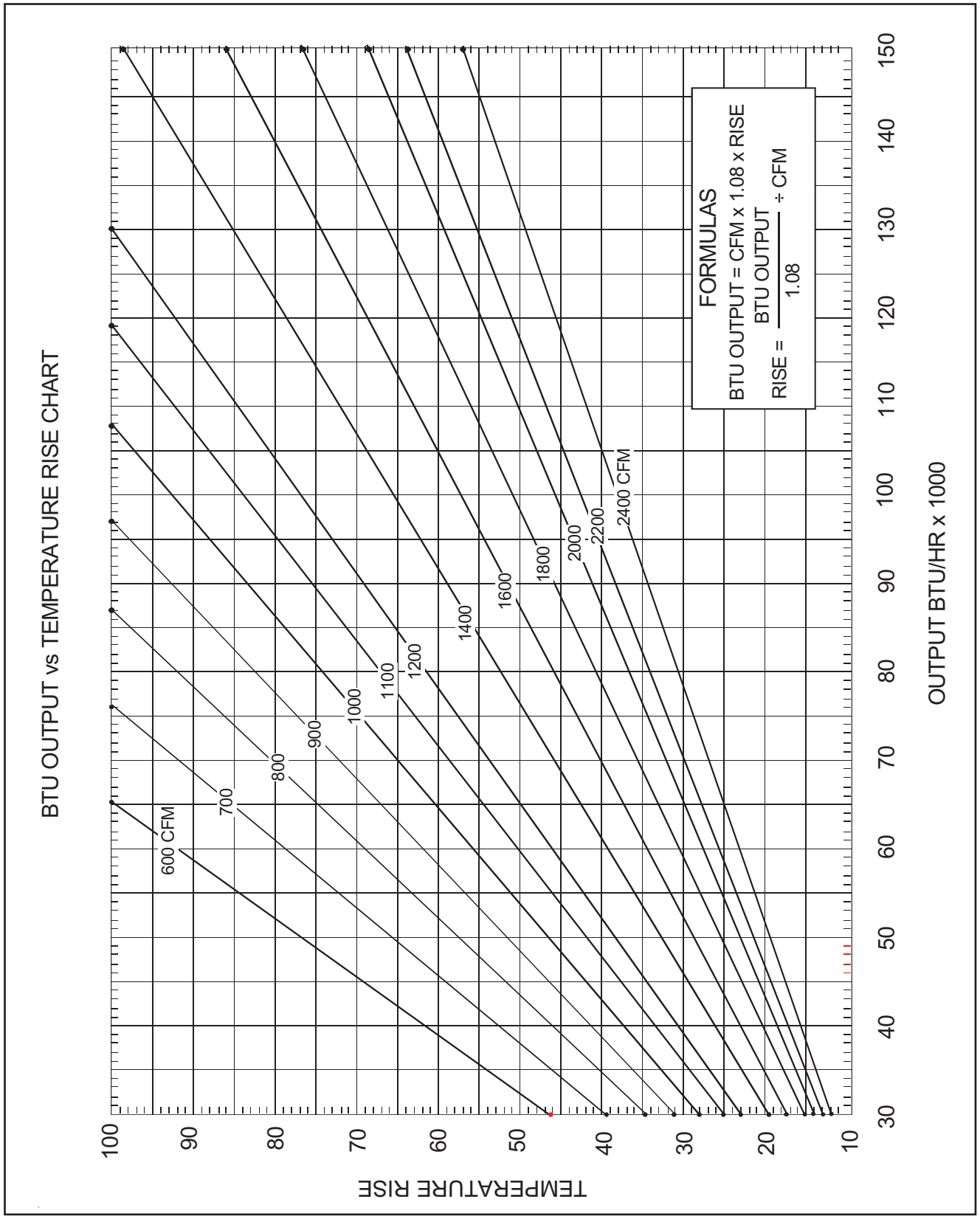
Continous Fan Speeds

Model	Furnace Maximum CFM	Continuous Fan Speed[1,2]
ADVC80703BX	1760	530
ADVC80905CX	2000	600
ADVC81155CX	2000	600

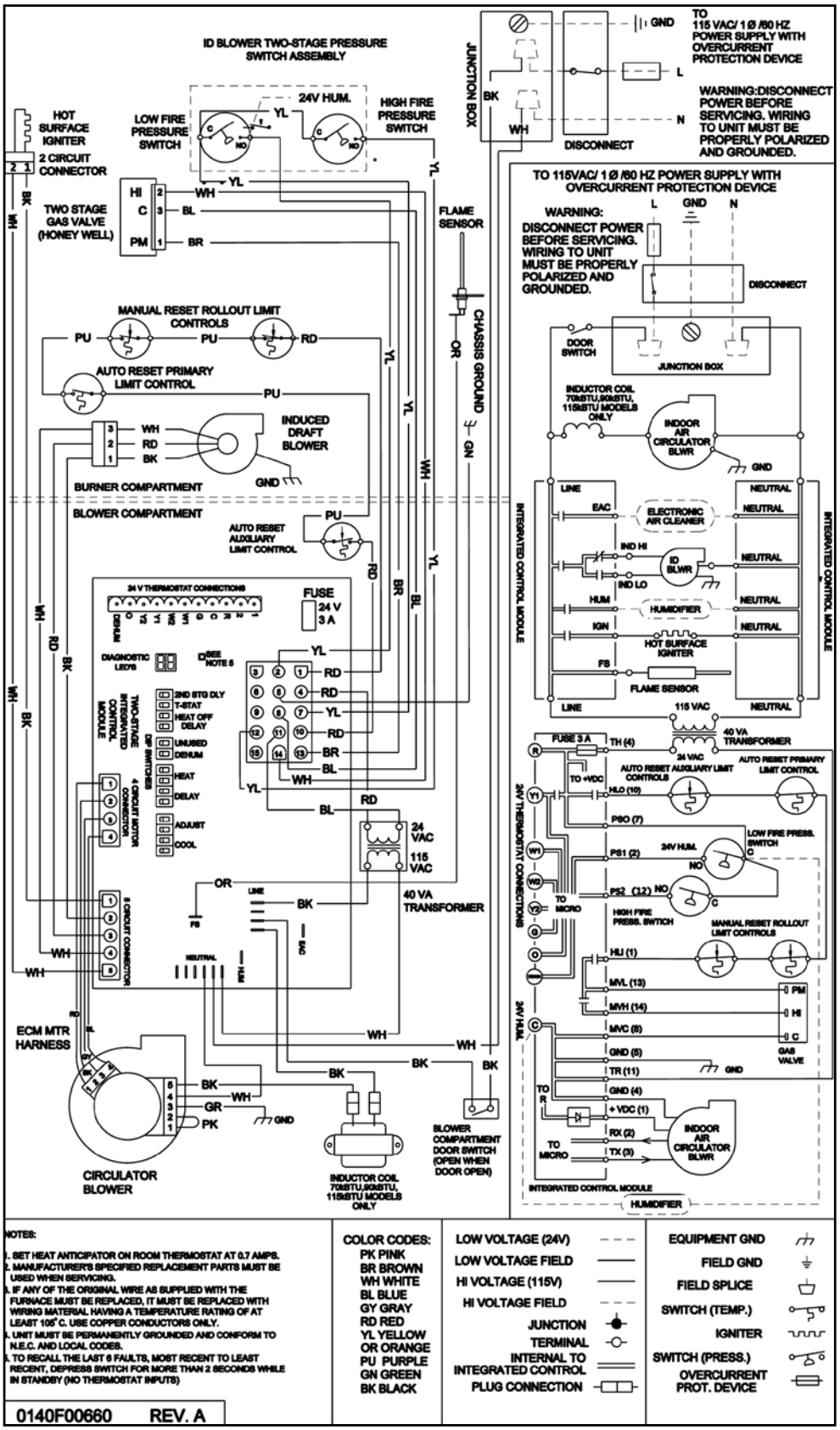
[1] Continuous fan speed is 30% of furnace maximum CFM

[2] Three continuous fan speeds are possible with the CTK01AA thermostat: 30%, 50%, and 70% of furnace maximum CFM

TEMPERATURE RISE CHART



WIRING DIAGRAM WITH HONEYWELL VALVE

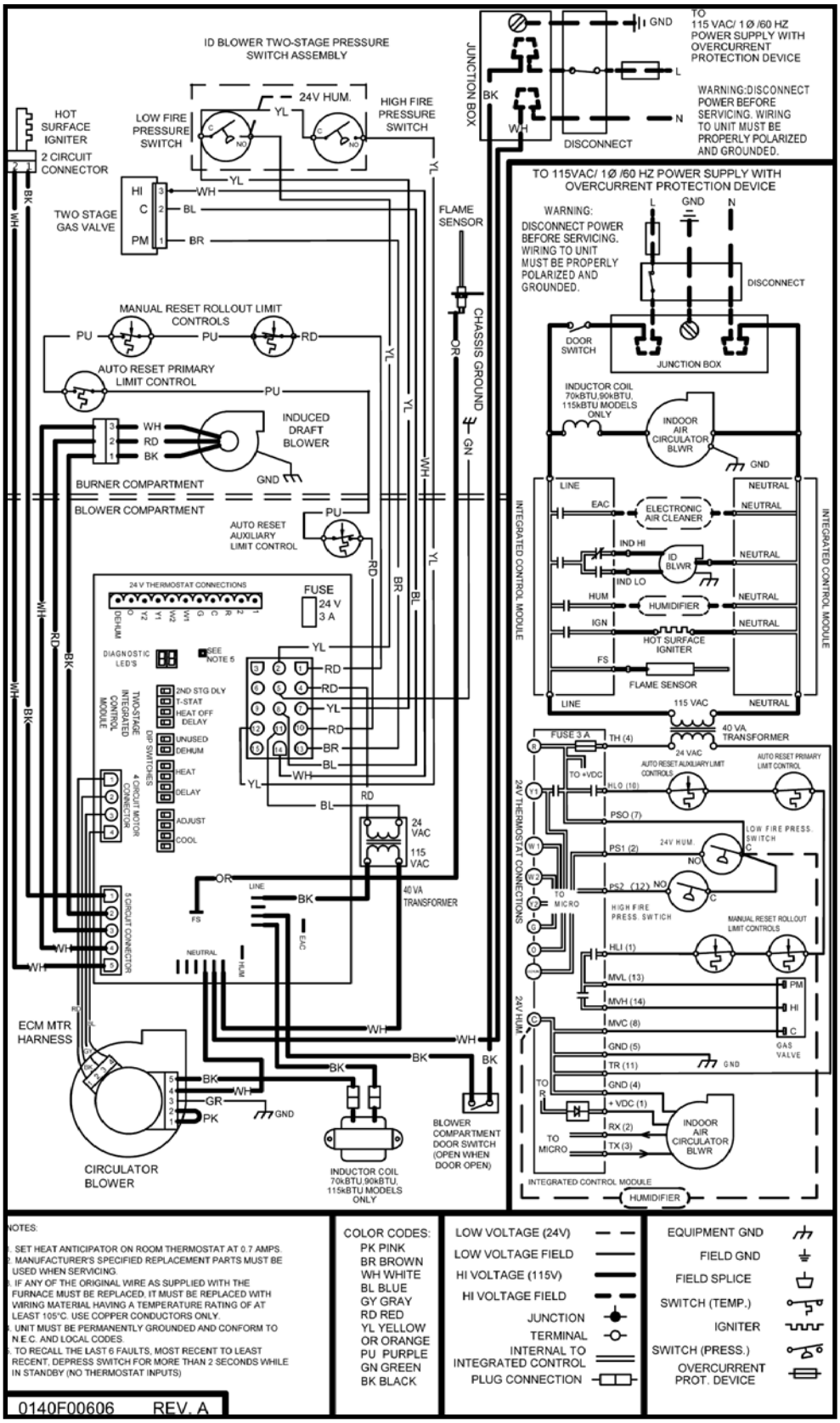


WARNING

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

WIRING DIAGRAM WITH WHITE-RODGERS VALVE



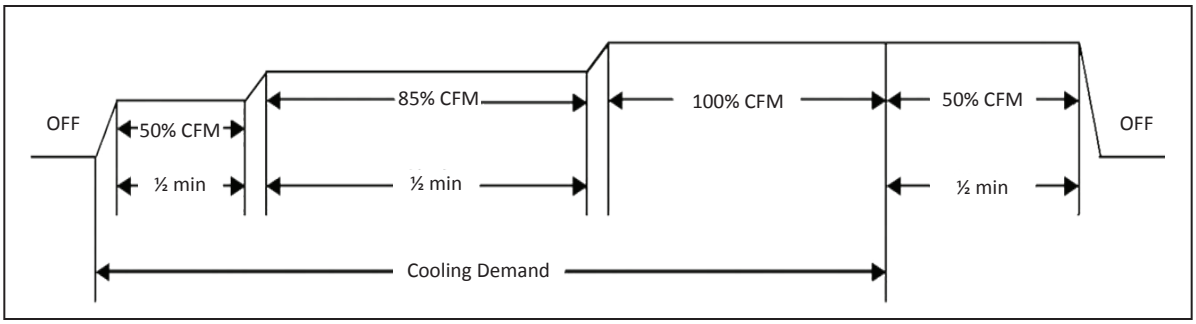
WARNING

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

Auto-Comfort Mode

During Auto-Comfort mode, the furnace ramps up to 50% of the demand for half a minute. It then ramps to 85% of the full cooling demand airflow and operates there for approximately 7½ minutes. The motor then steps up to the full demand airflow. This mode spends a half minute at 50% airflow OFF delay.



Accessories

Model	Description	AMVC8 0704BX	AMVC8 0905CX	AMVC8 1155CX	ADVC8 0703BX	ADVC8 0905CX	ADVC8 1155CX
LPM-05	LP Conversion Kit (Springs & Orifice) [1]	√	√	√	√	√	√
LPM-06	LP Conversion Kit (Springs & Orifice) [2]	√	√	√	√	√	√
AFE18-60A	Fossil Fuel Kit (must be used in a dual-fuel application with a compatible thermostat)	√	√	√	√	√	√
ASAS	Electronic Air Cleaners (* = -10, -11, -12 or -18)	√	√	√	√	√	√
AMU	Media Air Cleaners (* = 1620, 2020, 1625 or 2025)	√	√	√	√	√	√

[1] White-Rodgers valve only

[2] White-Rodgers and Honeywell valves