

HEATING INPUT: 60,000–100,000 BTU/H

TWO-STAGE, VARIABLE-SPEED  
 ECM GAS FURNACE  
 80% AFUE



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### Standard Features

- Integrated communicating ComfortBridge™ technology
- Two-stage gas valve provides quiet, economical heating
- Commissioning and diagnostics via on board Bluetooth with the CoolCloud™ phone and tablet application
- 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
- Self-diagnostic control board with constant memory fault code history output to a triple 7-segment display
- Low constant fan speed circulates air throughout the home
- Quiet, two-speed induced draft blower
- California Low NOx emissions-compliant models available
- Can no longer be installed in California's South Coast Air Quality Management District (SCAQMD) on or after October 1, 2019.
- AHRI Certified; ETL Listed

### Cabinet Features

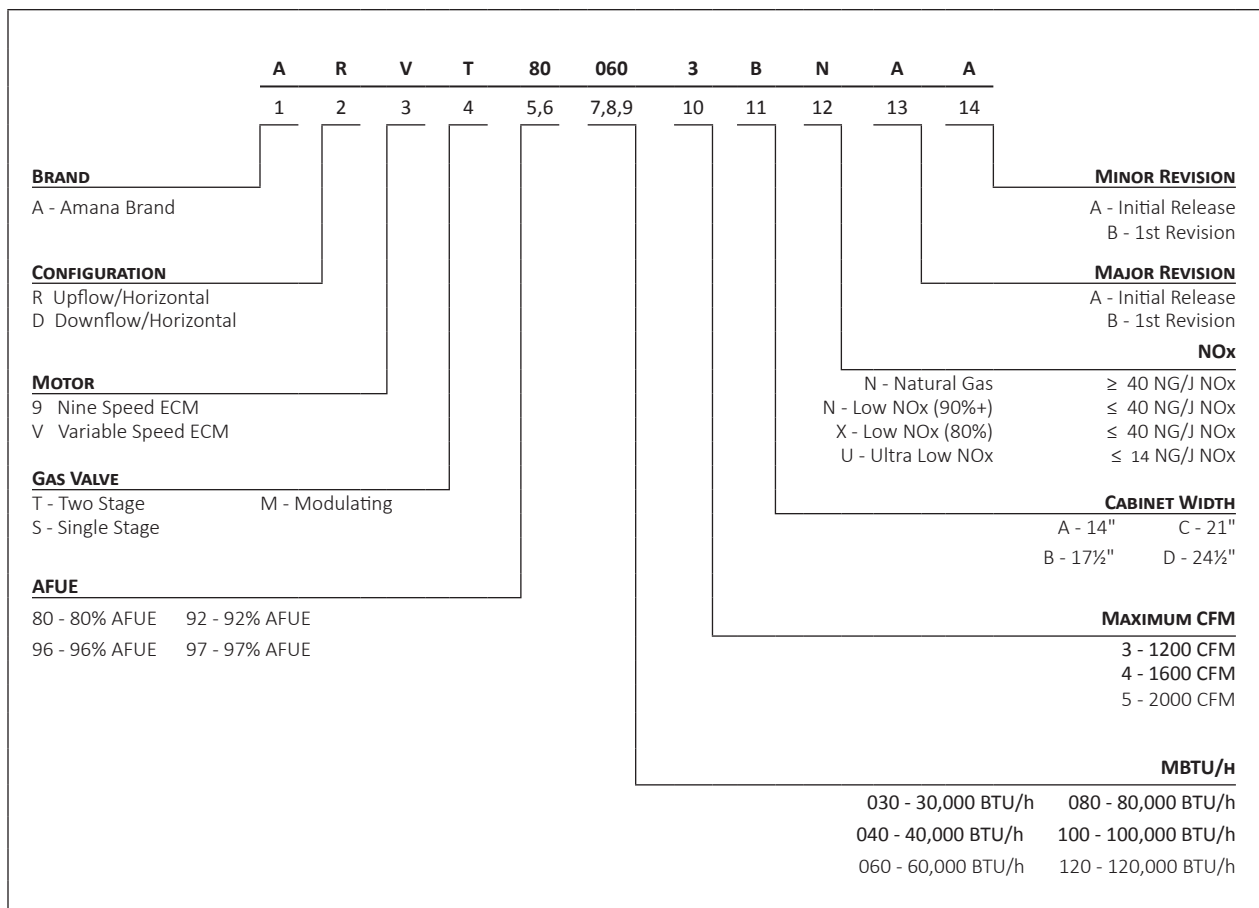
- Fully insulated, heavy-gauge steel cabinet with durable baked-enamel finish
- Multi-position installation:  
 ARVT80: upflow, horizontal left or right  
 ADVT80: downflow, horizontal left or right
- Removable bottom for side- or bottom-return applications
- Convenient left or right connection for gas/electric service
- Cabinet air leakage ≤ 2%
- Coil and furnace fit flush for most installations



Intertek

\* Complete warranty details available from your local dealer or at [www.amana-hac.com](http://www.amana-hac.com). To receive the Lifetime Unit Replacement Limited Warranty (good for as long as you own your home) and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration and some of the additional requirements are not required in Florida, California, or Québec. The duration of warranty coverage in Texas and Florida differs in some cases. Other limitations and exclusions apply; refer to complete warranty details for a full list of limitations and exclusions.

# NOMENCLATURE



	ARVT80 0603B*	ARVT80 0604B*	ARVT80 0803B*	ARVT80 0804C*	ARVT80 0805C*	ARVT80 0805D*	ARVT80 1005C*
<b>HEATING CAPACITY</b>							
High Fire Input (BTU/h) <sup>1</sup>	60,000	60,000	80,000	80,000	80,000	80,000	100,000
High Fire Output (BTU/h) <sup>1</sup> :							
Natural Gas	48,000	48,000	64,000	64,000	64,000	64,000	80,000
LP Gas	48,000	48,000	64,000	64,000	64,000	64,000	80,000
Low Fire Input (BTU/h) <sup>1</sup>	42,000	42,000	56,000	56,000	56,000	56,000	70,000
Low Fire Output (BTU/h) <sup>1</sup> :							
Natural Gas	33,600	33,600	44,800	44,800	44,800	44,800	56,000
LP Gas	33,600	33,600	44,800	44,800	44,800	44,800	56,000
AFUE <sup>2</sup>	80	80	80	80	80	80	80
Available AC @ 0.5" ESP	1.5 - 3.0	1.5 - 4.0	1.5 - 3.0	3.0 - 4.0	2.0 - 5.0	2.5 - 5.0	2.0 - 5.0
Temp Rise Range (° F) Low/High Fire	15-45 / 15-45	20-50 / 20-50	30-60 / 30-60	25-55 / 25-55	20-50 / 20-50	20-50 / 20-50	25-55 / 25-55
<b>CIRCULATOR BLOWER</b>							
Size (D x W)	10" x 8"	10" x 8"	10" x 8"	11" x 10"	10" x 10"	11" x 10"	10" x 10"
Horsepower - RPM	1/2	3/4	1/2	1/2	3/4	3/4	3/4
Speed	Variable	Variable	Variable	Variable	Variable	Variable	Variable
Vent Diameter <sup>1</sup>	4"	4"	4"	4"	4"	4"	4"
No. of Burners	3	3	4	4	4	4	5
<b>ELECTRICAL DATA</b>							
Min. Circuit Ampacity <sup>3</sup>	7.6	10.8	7.6	7.6	10.8	10.8	10.8
Max. Overcurrent Device (amps) <sup>4</sup>	15	15	15	15	15	15	15
<b>SHIP WEIGHT (LBS)</b>							
	105	107	110	118	121	129	124

<sup>1</sup> Natural Gas BTU/h; for altitudes above from 0' to 4,500' above sea level, reduce input rating 4% for each 1,000' above 4,500' altitude. Low-fire rate is 70% of high-fire rate.

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

<sup>3</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>4</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.

**SPECIFICATIONS**

	<b>ADVT80 0603BX</b>	<b>ADVT80 0803BX</b>	<b>ADVT80 0805CX</b>	<b>ADVT80 1005CX</b>
<b>HEATING CAPACITY</b>				
High Fire Input (BTU/h) <sup>1</sup>	60,000	80,000	80,000	100,000
High Fire Output (BTU/h) <sup>1</sup>				
Natural Gas	48,000	64,000	64,000	80,000
LP Gas	48,000	64,000	64,000	80,000
Low Fire Input (BTU/h) <sup>1</sup>	42,000	56,000	56,000	70,000
Low Fire Output (BTU/h) <sup>1</sup>				
Natural Gas	33,600	44,800	44,800	56,000
LP Gas	33,600	44,800	44,800	56,000
AFUE <sup>2</sup>	80	80	80	80
Available AC @ 0.5" ESP	1.5 - 3.0	1.5 - 3.0	2.0 - 5.0	2.0 - 5.0
Temp Rise Range (° F) Low/High Fire	25-55 / 25-55	30-60 / 30-60	25-55 / 25-55	20-50 / 20-50
<b>CIRCULATOR BLOWER</b>				
Size (D x W)	10" x 8"	10" x 8"	10" x 10"	10" x 10"
Horsepower - RPM	1/2	1/2	3/4	3/4
Speed	Variable	Variable	Variable	Variable
Vent Diameter	4"	4"	4"	4"
No. of Burners	3	4	4	5
<b>ELECTRICAL DATA</b>				
Min. Circuit Ampacity <sup>3</sup>	7.6	7.6	10.8	10.8
Max. Overcurrent Device (amps) <sup>4</sup>	15	15	15	15
<b>SHIP WEIGHT (LBS)</b>				
	105	109	125	129

<sup>1</sup> Natural Gas BTU/h; for altitudes above from 0' to 4,500' above sea level, reduce input rating 4% for each 1,000' above 4,500' altitude. Low-fire rate is 70% of high-fire rate.

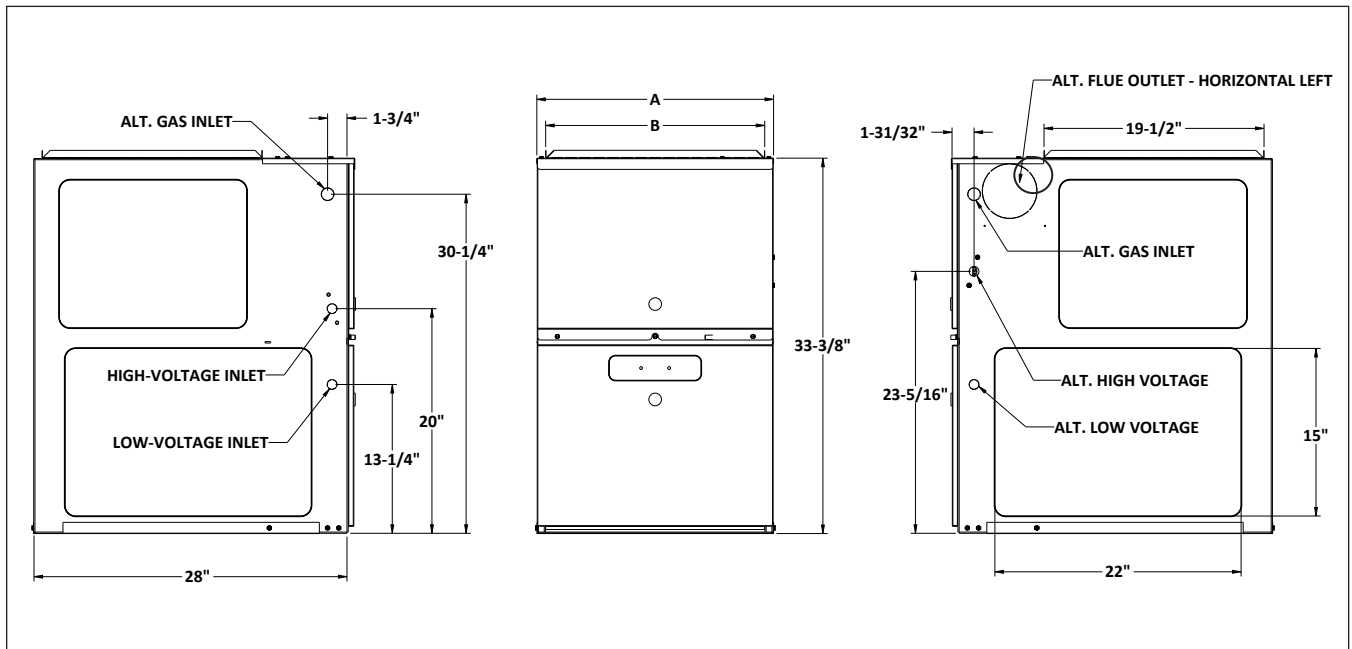
<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS)

<sup>3</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>4</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.



MODEL	DIMENSIONS			HEIGHTS	
	W	D	H	A	B
ARVT800603B**	17½"	28"	33⅜"	17½"	16"
ARVT800604B**	17½"	28"	33⅜"	17½"	16"
ARVT800803B**	17½"	28"	33⅜"	17½"	16"
ARVT800804C**	21"	28"	33⅜"	21"	19½"
ARVT800805C**	21"	28"	33⅜"	21"	19½"
ARVT800805D**	24½"	28"	33⅜"	24½"	23"
ARVT801005C**	21"	28"	33⅜"	21"	19½"

**MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS**

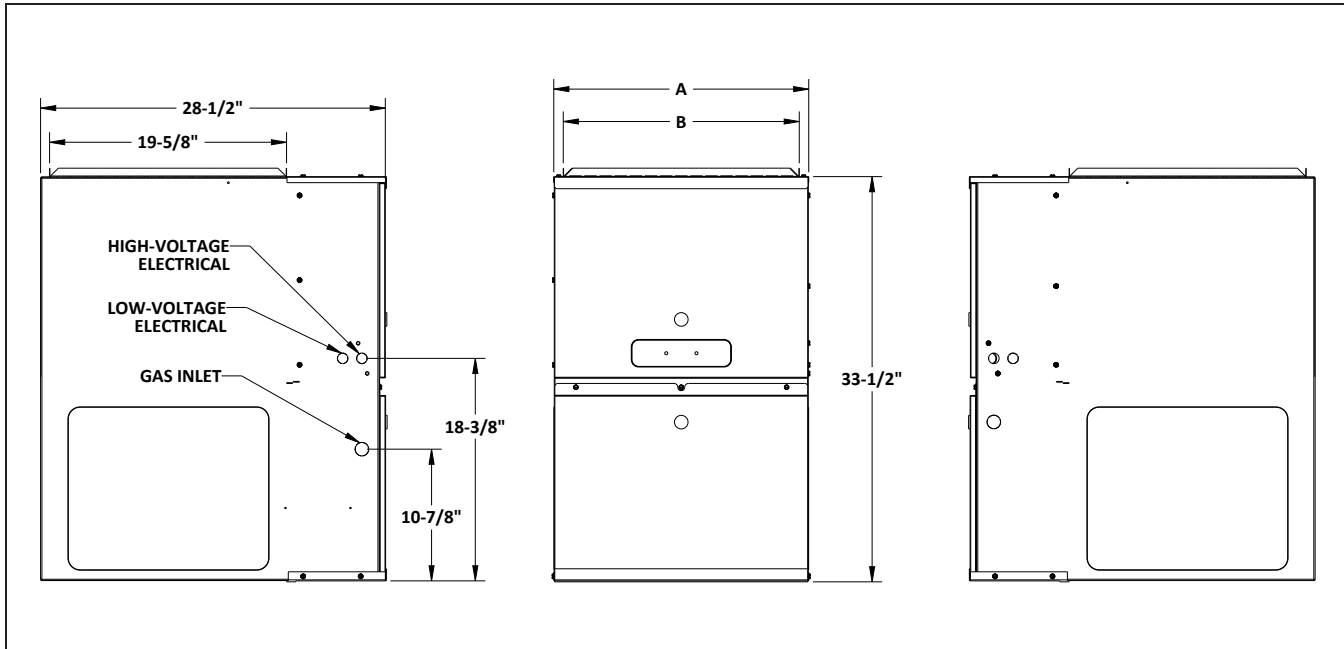
SIDES	REAR	FRONT	BOTTOM	VENT		TOP
				SW	B	
1	0	3	C	6	1	1

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.
- Refer to the appropriate USA and Canadian codes:
  - In the USA: the National Fuel Gas Code NFPA 54 / ANSI Z223.1
  - In Canada: the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2

## ADVT80 DIMENSIONS



MODEL	DIMENSIONS			HEIGHTS	
	W	D	H	A	B
ADVT800603BX*	17½"	28"	33¾"	17½"	16"
ADVT800803BX*	17½"	28"	33¾"	17½"	16"
ADVT800805CX*	21"	28"	33¾"	21"	19½"
ADVT801005CX*	21"	28"	33¾"	21"	19½"

### MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

SIDES	REAR	FRONT <sup>1</sup>	VENT		TOP
			SW	B	
1	0	3	6	1	1

Approved for line contact in the horizontal position.

<sup>1</sup> 24" clearance for serviceability recommended.

<sup>2</sup> 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.

MODEL/TEMP RISE RANGE (MID RISE)	ADVT800603BXA* 25-55 (40)		ADVT800803BXA* 30-60 (45)"		ADVT800805CXA* 25-55 (40)		ADVT801005CXA* 20-50 (35)		ARVT800603B*A* 15-45 (30)		ARVT800604B*A* 25-50 (35)	
	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
Recommended cfm for high heat / expected temperature rise	1100	40	1325	45	1470	40	2090	35	1400	32	1275	35
Lowest recommended cfm for high heat / expected temperature rise	810	55	990	60	1070	55	1475	50	980	45	890	50

MODEL/TEMP RISE RANGE (MID RISE)	ARVT800803B*A* 30-60 (45)		ARVT800804C*A* 25-55 (40)		ARVT800805C*A* 20-50 (35)		ARVT800805D*A* 20-50 (35)		ARVT801005C*A* 25-55 (40)	
	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
Recommended cfm for high heat / expected temperature rise	1330	45	1400	42	1700	35	1700	35	1850	40
Lowest recommended cfm for hi heat / expected temperature rise	980	60	1090	54	1175	50	1175	50	1350	55

**ARVT800603B\*A\*, ARVT800803B\*A\*  
ADVT800603BXA\*, ADVT800803BXA\*  
COOLING SPEED  
(@ 0.1" - 0.8" w.c. ESP)**

TONS	HIGH-STAGE	LOW-STAGE CFM
1.5	600	420
2	800	560
2.5	1,000	700
3	1,200	840
MAX	1,400	

**ARVT800604B\*A\*  
ARVT800804C\*A\*  
COOLING SPEED  
(@ 0.1" - 0.8" w.c. ESP)**

TONS	HIGH-STAGE	LOW-STAGE CFM
2	800	560
2.5	1,000	700
3	1,200	840
4	1,600	1,120
MAX	1,760	

**ADVT800805CXA\*  
ADVT801005CXA\*  
COOLING SPEED (@ .1" - .8" w.c. ESP)**

TONS	HIGH-STAGE	LOW-STAGE CFM
2	800	560
3	1,200	840
4	1,600	1,120
5	2,000	1,400
MAX	2,000	

**ARVT800805C\*A\*, ARVT800805D\*A\*  
ARVT801005C\*A\*  
COOLING SPEED  
(@ .1" - .8" w.c. ESP)**

TONS	HIGH-STAGE	LOW-STAGE CFM
2	800	560
3	1,200	840
4	1,600	1,120
5	2,000	1,400
MAX	2,200	

All furnaces ship as high speed for cooling. Installer must adjust blower speed as needed.

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

Do not operate above .5" w.c. ESP in heating mode. Operating CFM between .5" and .8" w.c. is tabulated for cooling purposes only.

## AIRFLOW DATA (CONT.)

### ADVT80 CONTINUOUS FAN SPEEDS

MODEL	FURNACE MAXIMUM CFM	CONTINUOUS FAN SPEED
ADVT800603BXA*	1,400	350-1,400
ADVT800803BXA*	1,400	350-1,400
ADVT800805CXA*	2,200	550-2,200
ADVT801005CXA*	2,200	550-2,200

### ADVT80 MINIMUM FILTER SIZES

MODEL #	ADVT800603BX, ADVT800803BX	ADVT800805CX	ADVT801005CX
Filter Size (in <sup>2</sup> )	(2) 10 x 20 or (1) 16 x 25 (Top Return)	(2) 14 x 20 or (1) 20 x 25 (Top Return)	

Note: Other size filters of equal or greater surface area may be used; filters may also be centrally located.

<sup>1</sup> Use 2 - 16 X 25 filters on side returns or 20 X 25 filter on bottom return if furnace is connected to a cooling unit over 4 tons nominal capacity.

### ARVT80 CONTINUOUS FAN SPEEDS

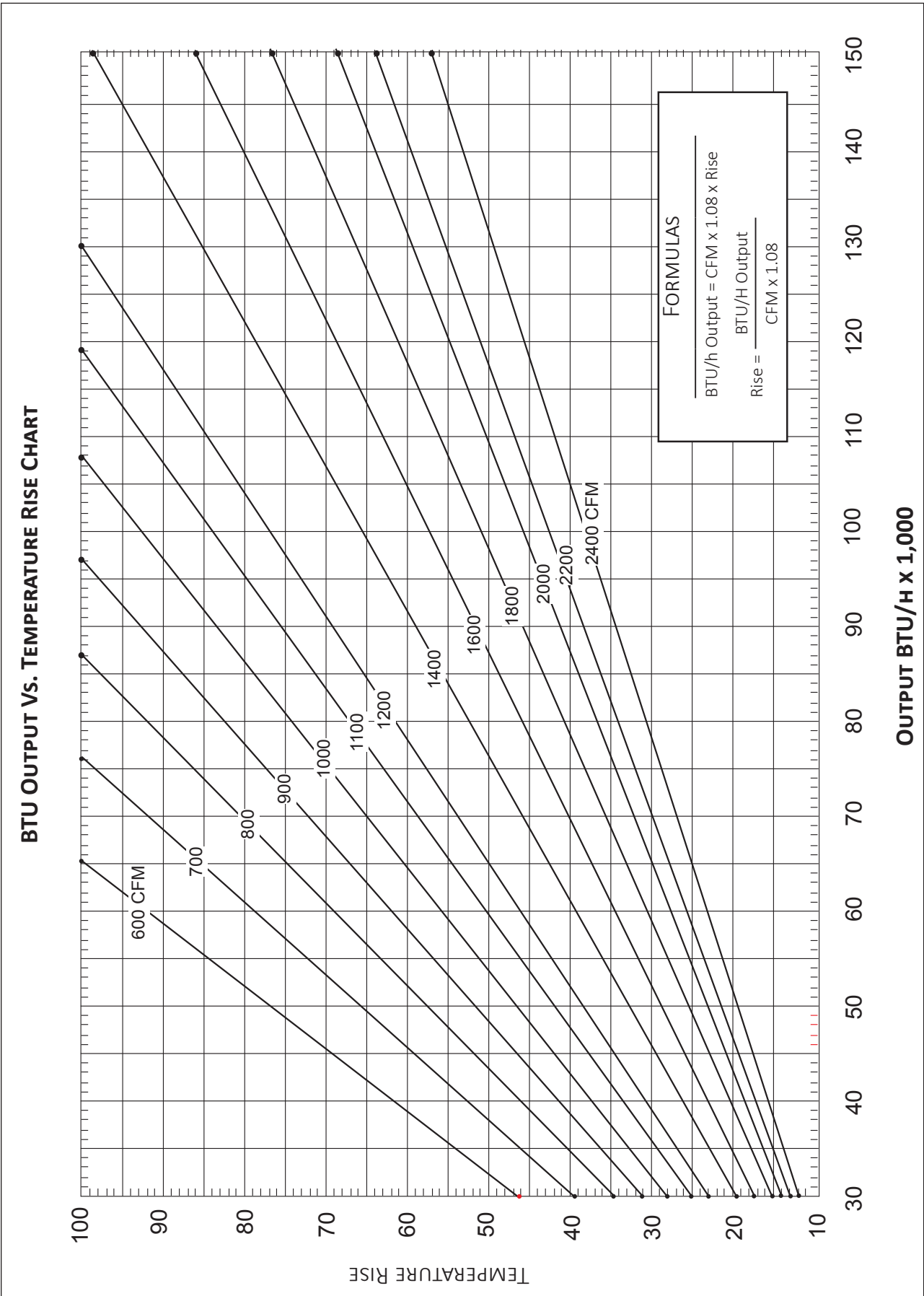
MODEL	FURNACE MAXIMUM CFM	CONTINUOUS FAN SPEED
ARVT800603B*A*	1,400	350-1,400
ARVT800604B*A*	1,760	440-1,760
ARVT800803B*A*	1,400	350-1,400
ARVT800804C*A*	1,760	440-1,760
ARVT800805C*A*	2,200	550-2,200
ARVT800805D*A*	2,200	550-2,200
ARVT801005C*A*	2,200	550-2,200

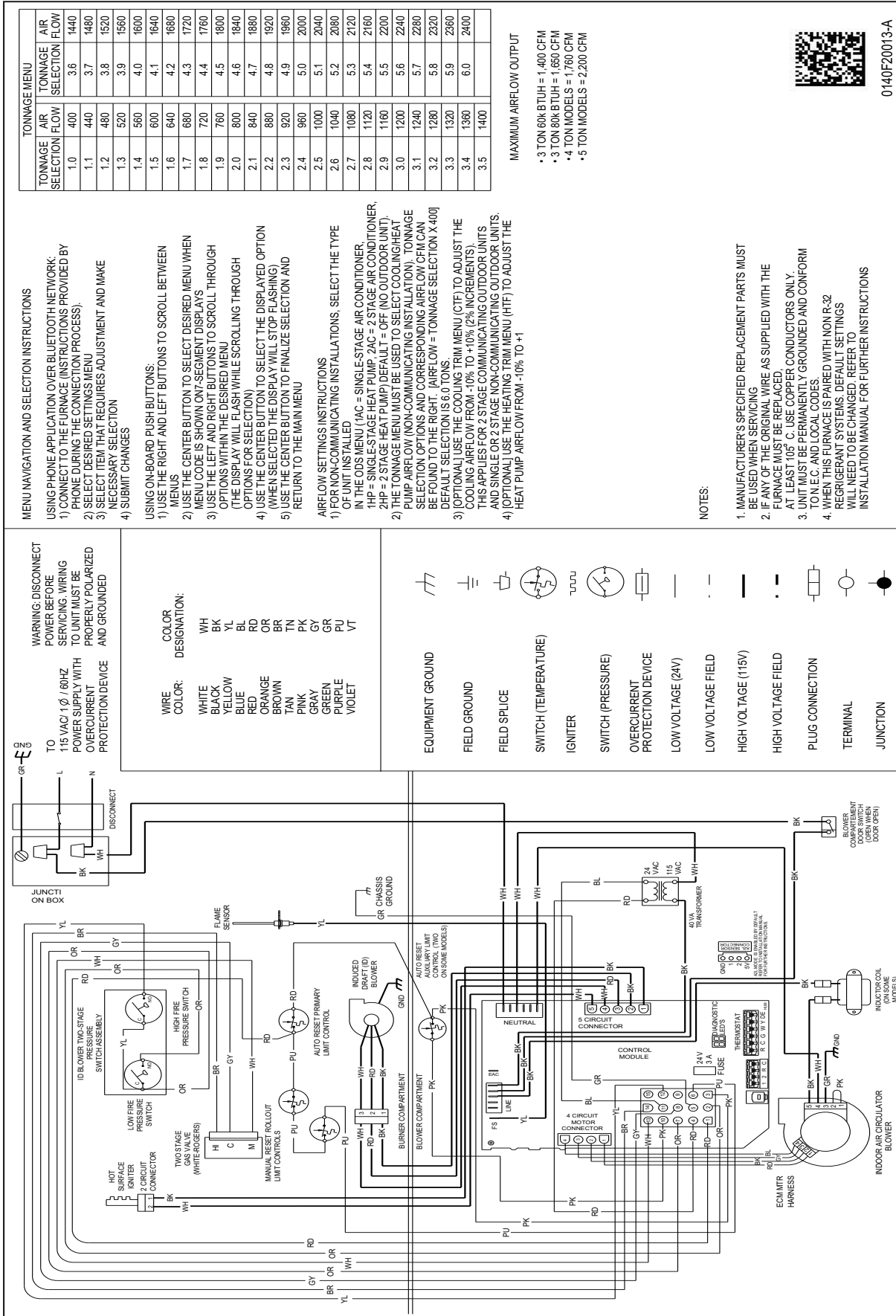
### ARVT80 MINIMUM FILTER SIZES

MODEL #	ARVT800603B*, ARVT800604B*, ARVT800803B*	ARVT800804C*, ARVT800805C*, ARVT800805D*	ARVT801005C*
Filter Size (in <sup>2</sup> )	(1) 16 x 25 (Side or Bottom)	(1) 16 x 25 (Side or Bottom)	(2) 16 x 25 (Side) or (1) 20 x 25 (Bottom)

Note: Other size filters of equal or greater surface area may be used; filters may also be centrally located.

<sup>1</sup> Use 2 - 16 X 25 filters on side returns or 20 X 25 filter on bottom return if furnace is connected to a cooling unit over 4 tons nominal capacity.





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**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.



**WARNING**

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

MODEL	DESCRIPTION	ARVT80 0603B*	ARVT80 0604B*	ARVT80 0803B*	ARVT80 0804C*	ARVT80 0805C*	ARVT80 0805D*	ARVT80 1005C*
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√	√	√
HA-04	High-Altitude Kit (2000 - 5400 feet)	—	—	√	√	√	√	√
HA-05	High-Altitude Kit (2000 - 5400 feet)	√	√	—	—	—	—	—
HA-04	High-Altitude Kit (5400 - 7800 feet)	—	—	—	—	—	—	—
HA-05	High-Altitude Kit (5400 - 7800 feet)	√	√	√	√	√	√	√
LPM-32	LP Conversion Kit	√	√	√	√	√	√	√

MODEL	DESCRIPTION	ADVT80 0603BX	ADVT80 0803BX	ADVT80 0805CX	ADVT80 1005CX
SBT17	Downflow Sub-Base 17.5"	√	√	—	—
SBT21	Downflow Sub-Base 21"	—	—	√	√
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√
HA-04	High-Altitude Kit (2000 - 5400 feet)	—	√	√	√
HA-05	High-Altitude Kit (2000 - 5400 feet)	√	—	—	—
HA-04	High-Altitude Kit (5400 - 7800 feet)	—	—	—	—
HA-05	High-Altitude Kit (5400 - 7800 feet)	√	√	√	√
LPM-32	LP Conversion Kit	√	√	√	√

