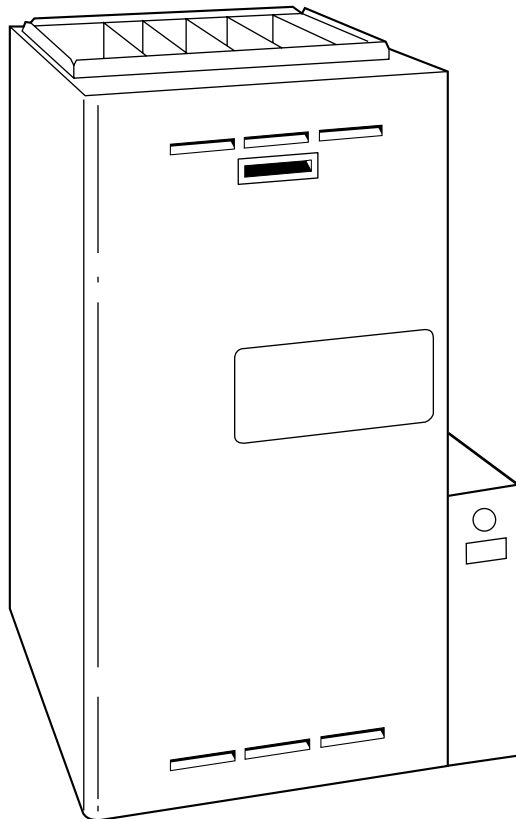




# HIGHLY-EFFICIENT 4-WAY MULTIPOISE FIXED-CAPACITY DIRECT-VENT DELUXE CONDENSING GAS FURNACE

## 350MAV

Sizes 040 thru 140



Utilizing the extensive resources available to Bryant, a new standard of excellence has been achieved with the model 350MAV Plus 90™ 4-Way Multipoise Furnace.

The model 350MAV was designed around requirements established by customer focus groups. The result is a unique 4-way multipoise condensing furnace with features like no other product in its class. The 350MAV builds on the many Bryant successes in the furnace industry and establishes a new standard for all high-efficiency gas furnaces.

### FEATURES

**4-Way Multipoise Design**—Allows a 350MAV model to be installed in an upflow, downflow, or horizontal orientation. Factory configured for upflow applications. Simple changes in the drain connections are all it takes to change to any of the 3 other possible positions.

The model 350MAV is available in 12 heat/airflow combinations, and when combined with the 4-way design, allows for 48 different applications.

**Media Filter Cabinet**—Enhanced indoor air quality in your home is made easier with our media filter cabinet—a standard accessory on all Deluxe furnaces. When installed as a part of your system, this cabinet allows for easy and convenient addition of a Bryant high-efficiency air filter.

**Sealed Combustion (Direct-Vent) System**—Enclosed burner assembly isolates operating noise without the expense of sound deadening devices. The sealed combustion (direct-vent) system brings outdoor air directly into the combustion chamber, reducing

infiltration of cold air into the structure and reducing heat loss.

**3-Pass Primary Heat Exchangers**—This design accelerates heat transfer and extracts heat that conventional heat exchangers waste up the flue. The weld-free primary heat exchangers are made of aluminized steel for corrosion resistance.

**Flow-Through Secondary Heat Exchangers**—Each cell is laminated with our patented Everlastic™ polypropylene for greater resistance to corrosion. This breakthrough in heating technology helps extend the life of the furnace for years of trouble-free Plus 90 performance. The heat exchanger is positioned in the furnace to extract additional heat from the combustion products regardless of furnace orientation.

**Warranty**—Limited Lifetime Warranty on the heat exchangers for the lifetime of the original owner in single family residence; 20-year limited warranty in other residential and commercial applications. Contact your dealer for details. Three-year limited warranty on microprocessor control, hot surface ignitor, and inducer motor.

**Monoport Inshot Burners**—Produce precise air-to-gas mixture which gives a clean burn. The large monoport on the inshot or injection-type burners seldom, if ever, needs cleaning.

**Microprocessor Control Center**—The printed-circuit board and all internal wiring are factory installed. Convenient terminals permit quick-connection of a thermostat, a humidifier, an air cleaner, and air conditioning control circuits.

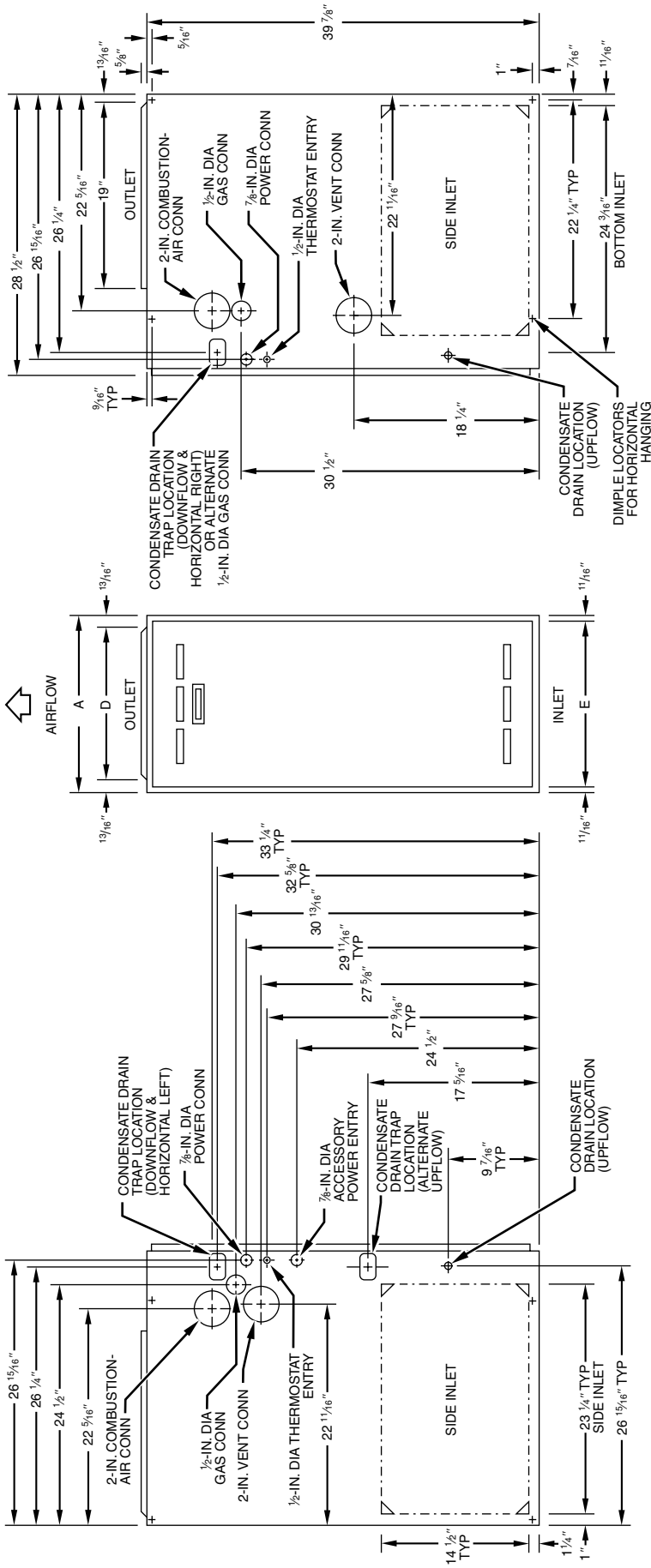
The control has adjustable blower off delay switches. As an added feature, the control has a built-in status indicator and self-test feature. The status indicator flashes to indicate a problem condition and assists the servicer in diagnosis. The self-test feature allows for a complete check of the major components in only seconds.

**Combustion Air and Ventilation**—The 350MAV advanced design allows Schedule 40PVC, PVC-DWV, SDR-21 PVC, SDR-26 PVC (not approved in Canada), ABS-DWV, or ABS-F628 Schedule 40 pipe to bring outdoor air into the furnace for combustion. The extracted heat lowers the temperature of the combustion products to a point (typically below 115°F) that any of the approved types of pipe can also be used for venting combustion products outside the structure. The combustion-air and vent pipes can terminate through a side wall or through the roof when using 1 of our approved vent termination kits.

**Fully-Insulated Casing**—Foil-faced insulation in the heat exchanger section cuts heat loss, and insulation in the blower section reduces noise levels. The casing also has the required openings for left- or right-side connection of gas, electric, drain, and vent connections.

**Certifications**—The 350MAV units are A.G.A. and C.G.A. design certified for use with natural and propane gases, as well as GAMA efficiency rating certified. The furnace is factory-shipped for use with natural gas. An A.G.A./C.G.A. listed gas conversion kit is required to convert furnace for use with propane gas. The model 350MAV meets the California Air Quality Management District emission requirements. Except for the 140 size unit, all 350MAV models can be installed in a manufactured (mobile) home when the optional kit is used.

**Quality Registration**—The 350MAV is engineered and manufactured under an ISO 9001 registered quality system.



- NOTES:**
- Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameters.
  - Minimum return-air opening at furnace:
    - For 800 CFM—16-in. round or 14 1/2 x 12-in. rectangle.
    - For 1200 CFM—20-in. round or 14 1/2 x 19 1/2-in. rectangle.
    - For 1600 CFM—22-in. round or 14 1/2 x 23 1/2-in. rectangle.
    - For airflow requirements above 1800 CFM, see Air Delivery table in Product Data literature 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 will ensure adequate return air openings for airflow requirements above 1800 CFM at 0.5" W.C. ESP.

**DIMENSIONS (In.)**

UNIT SIZE	A	D	E	SHIP. WEIGHT (Lb)
024040	17-1/2	15-7/8	16	174
036040	17-1/2	15-7/8	16	175
024060	17-1/2	15-7/8	16	180
036060	17-1/2	15-7/8	16	182
048060	17-1/2	15-7/8	16	183
036080	17-1/2	15-7/8	16	198
048080	17-1/2	15-7/8	16	205
060080	21	19-3/8	19-1/2	214
048100	21	19-3/8	19-1/2	229
060100	21	19-3/8	19-1/2	232
060120	24-1/2	22-7/8	23	261
060140	24-1/2	22-7/8	23	261

# Clearance to Combustibles

## INSTALLATION

This forced air furnace is equipped for use with natural gas at altitudes 0 - 10,000 ft (0 - 3,050m), except 140 size Furnaces are only approved for altitudes 0 - 7,000 ft. (0 - 2,135m). An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications. This furnace is for indoor installation in a building constructed on site. This furnace may be installed in a manufactured (mobile) home when stated on rating plate and using factory authorized kit.

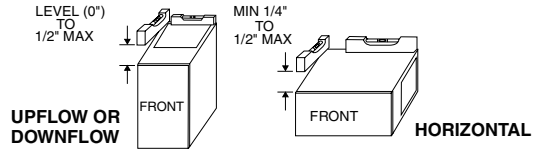
This furnace may be installed on combustible flooring in alcove or closet at minimum clearance from combustible material. This appliance requires a special venting system. Refer to the installation instructions for parts list and method of installation. This furnace is for use with schedule-40 PVC, PVC-DWV, CPVC, or ABS-DWV pipe, and must not be vented in common with other gas-fired appliances. Construction through which vent/air intake pipes may be installed is maximum 24 inches (600 mm), minimum 3/4 inches (19 mm) thickness (including roofing materials).

Cette fournaise à air pulsé est équipée pour utilisation avec gaz naturel et altitudes comprises entre 0 - 3,050m (0-10,000 pi), excepté quelques fournaises de 140 taille sont pour altitudes comprises entre 0 - 2,135m (0 - 7,000 pi). Utiliser une trousse de conversion, fournie par le fabricant, pour passer au gaz propane ou pour certaines installations au gaz naturel. Cette fournaise à air pulsé est pour installation à l'intérieur dans un bâtiment construit sur place. Cette fournaise à air pulsé peut être installée dans une maison préfabriquée (maison mobile) si prescrit par la plaque signalétique et si l'on utilise une trousse spécifiée par le fabricant.

Cette fournaise peut être installée sur un plancher combustible dans un enfoncement ou un placard en observant les dégagements minimums avec les matériaux combustibles. Cet appareil nécessite un système d'évacuation spécial. La méthode d'installation et la liste des pièces nécessaires figurent dans les instructions d'installation. Cette fournaise doit s'utiliser avec la tuyauterie des nomenclatures 40 PVC, PVC-DWV, CPVC, ou ABS-DWV et elle ne peut pas être ventilée conjointement avec d'autres appareils à gaz. Epaisseur de la construction au travers de laquelle il est possible de faire passer les tuyaux d'aération (admission/évacuation): 24 po (600 mm) maximum, 3/4 po (19 mm) minimum (y compris la toiture).

For upflow and downflow applications, furnace must be installed level, or pitched within 1/2" of level. For a horizontal application, the furnace must be pitched minimum 1/4" to maximum of 1/2" forward for proper drainage. See Installation Manual for IMPORTANT unit support details on horizontal applications.

Pour des applications de flux ascendant et descendant, la fournaise doit être installée de niveau ou inclinée à pas plus de 1/2" du niveau. Pour une application horizontale, la fournaise doit être inclinée entre minimum 1/4" et maximum 1/2" du niveau pour le drainage approprié. En cas d'installation en position horizontale, consulter les renseignements IMPORTANTS sur le support dans le manuel d'installation.



### MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

#### ALL POSITIONS:

- \* Minimum front clearance for service 30 inches (762mm).
- †† 140 size furnaces require 1 inch back clearance to combustible materials.

#### DOWNFLOW POSITIONS:

- † For installation on combustible floors only when installed on special base No. KGASB0201ALL, Coil Assembly, Part No. CD5 or CK5, or Coil Casing, Part No. KCAKC.

#### HORIZONTAL POSITIONS:

Line contact is permissible only between lines formed by intersections of top and two sides of furnace jacket, and building joists, studs, or framing.

Clearance shown is for air inlet and air outlet ends.

- § 120 and 140 size furnaces require 1 inch bottom clearance to combustible materials.

### DÉGAGEMENT MINIMUM EN POUCHES AVEC ÉLÉMENTS DE CONSTRUCTION COMBUSTIBLES

#### POUR TOUS LES POSITIONS:

- \* Dégagement avant minimum de 762mm (30 po) pour l'entretien.
- †† Pour les fournaises de 140 taille, 1 po (25mm) dégagement des matériaux combustibles est requis au-arrière.

#### POUR LA POSITION COURANT DESCENDANT:

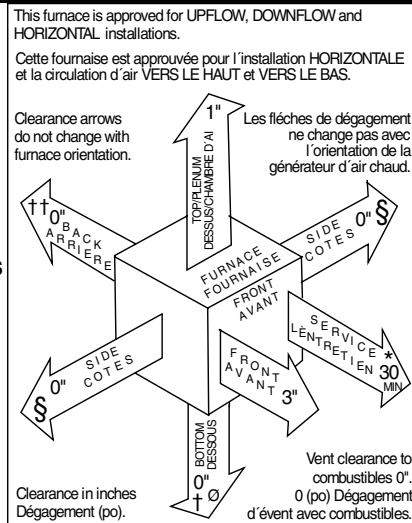
- † Pour l'installation sur le plancher combustible seulement quand on utilise la base spéciale, pièce n° KGASB0201ALL, l'ensemble serpentin, pièce n° CD5 ou CK5, ou le carter de serpentin, pièce n° KCAKC.

#### POUR LA POSITION HORIZONTALE:

Le contact n'est permis qu'entre les lignes formées par les intersections du dessus et des deux côtés de la chemise de la fournaise, et des solives, des montants ou de la charpente du bâtiment.

- § La distance indiquée concerne l'extrémité du tuyau d'arrivée d'air et l'extrémité du tuyau de sortie d'air.
- § Pour les fournaises de 120 et 140 taille, 1 po (25mm) dégagement des matériaux combustibles est requis au-dessous.

324999-201 REV. D (LIT TOP)



A02148

## Controls—Thermostats and Zoning

### Non-Programmable Thermostat Selection

TSTATBBNAC01-B	For use with 1-spd. Air Conditioner - deg. F/C, Auto Changeover
TSTATBBNHP01-B*	For use with 1-spd. Air Conditioner - deg. F/C, Auto Changeover
TSTATBBN2S01-B*	For use with 2-spd. Air Conditioner - deg. F/C, Auto Changeover
TSTATBBBAC01-B	For use with 1-spd. Air Conditioner - deg. F/C
TSTATBBPRH01-B**	For multi-use / stage configurations - deg. F/C, Auto Changeover/Temperature and Humidity Control

\* Model HP and 2S thermostat must be field converted to air conditioner operation.

\*\*Thermostat Control is versatile and can be configured for multiple use and staging, it must be configured for each specific application.

### Programmable Thermostat Selection

TSTATBBPAC01-B	For use with 1-spd. Air Conditioner - deg. F/C, Auto Changeover, 7-Day Programmable
TSTATBBPHP01-B*	For use with 1-spd. Air Conditioner - deg. F/C, Auto Changeover, 7-Day Programmable
TSTATBBP2S01-B*	For use with 2-spd. Air Conditioner - deg. F/C, Auto Changeover, 7-Day Programmable
TSTATBBSAC01	For use with 1-spd. Air Conditioner - deg. F/C, 5-2 Day Programmable
TSTATBBPDF01-B**	For use with multi-stage applications - deg. F/C, Auto Changeover, 7-Day Programmable
TSTATBBPRH01-B***	For multi-use / stage configurations - deg. F/C, Auto Changeover, 7-Day Programmable/Temperature and Humidity Control

\* Model HP and 2S thermostat must be field converted to air conditioner operation.

\*\*Dual Fuel thermostat is used with furnace and heat pump application

\*\*\*Thermostat Control can be configured for multiple use and staging, it must be configured for each specific application.

### Zoning Control Selection

ZONEKIT2ZBDP	Zone Perfect Two-Zone kit
ZONEBB2KIT01-B	Zone Perfect Plus 2-Zone kit/Temperature and Humidity Control
ZONEBB4KIT01-B	Zone Perfect Plus 4-Zone kit/Temperature and Humidity Control
ZONEBB8KIT01-B	Zone Perfect Plus 8-Zone kit/Temperature and Humidity Control

## SPECIFICATIONS

UNIT SIZE	024040	036040	024060	036060	048060	036080
<b>RATINGS AND PERFORMANCE</b>						
Input Btuh*	40,000	40,000	60,000	60,000	60,000	80,000
Output Capacity† ICS (Shaded capacities are specified on rating plate)	Upflow	38,000	38,000	56,000	56,000	75,000
	Downflow	38,000	38,000	56,000	56,000	75,000
	Horizontal	38,000	38,000	56,000	56,000	74,000
AFUE%† Nonweatherized ICS	Upflow	94.3	95.5	93.1	93.1	93.1
	Downflow	92.9	94.0	91.7	91.7	91.7
	Horizontal	93.7	94.9	92.5	92.5	92.5
Certified Temperature Rise Range °F	30—60	15—45	45—75	30—60	20—50	40—70
Certified External Static Pressure	Heating	0.10	0.10	0.12	0.12	0.15
	Cooling	0.50	0.50	0.50	0.50	0.50
Airflow CFM‡	Heating	850	1125	885	1065	1320
	Cooling	895	1215	900	1200	1545
<b>ELECTRICAL</b>						
Unit Volts—Hertz—Phase	115—60—1					
Operating Voltage Range Min—Max**	104—127					
Maximum Unit Amps	6.1	7.3	6.1	7.1	9.5	7.6
Unit Ampacity††	8.4	10.0	8.4	9.8	12.8	10.4
Minimum Wire Size	14	14	14	14	14	14
Maximum Wire Length (Ft)‡‡	44	37	44	38	29	36
Maximum Fuse Size or Ckt Bkr Amps (Time-Delay Fuse Recommended)	15	15	15	15	15	15
Transformer (24v)	40va					
External Control Power Available	Heating	12va				
	Cooling	21va				
Air Conditioning Blower Relay	Standard					
<b>CONTROLS</b>						
Limit Control	SPST					
Heating Blower Control (Off Delay)	Selectable 90, 120, 150, or 180 Sec					
Burners (Monoport)	2	2	3	3	3	4
Gas Connection Size	1/2-in. NPT					
<b>GAS CONTROLS</b>						
Gas Valve (Redundant)	Manufacturer	White-Rodgers				
	Min Inlet Pressure (In. wc)	4.5 (Natural Gas)				
	Max Inlet Pressure (In. wc)	13.6 (Natural Gas)				
Ignition Device	Hot Surface					
<b>BLOWER DATA</b>						
Direct-Drive Motor HP (Permanent Split Capacitor)	1/5	1/3	1/5	1/3	1/2	1/3
Motor Full Load Amps	4.9	5.8	4.9	5.8	7.9	5.8
RPM (Nominal)—Speeds	1075—3	1075—4	1075—3	1075—4		
Blower Wheel Diameter x Width (In.)	10 x 6	10 x 7	10 x 6	10 x 7	11 x 8	10 x 7
Filter Size (In.)—Permanent Washable	(1) 16 x 25 x 1					
<b>FACTORY-AUTHORIZED AND LISTED, DEALER-INSTALLED OPTIONS</b>						
Gas Conversion Kit—Natural-to-Propane	KGANP2901ALL					
Gas Conversion Kit—Propane-to-Natural	KGAPN2301ALL					
Twinning Kit—Upflow ONLY	N/A				KGATW0601HSI	N/A
Manufactured (Mobile) Home Kit	KGAMH0101KIT					
Downflow Base***	KGASB0201ALL					
Vent Termination Kit (Bracket Only for 2 Pipes)	2-in.—KGAVT0101BRA		3-in.—KGAVT0201BRA			
Concentric Vent Termination Kit (Single Exit)	2-in.—KGAVT0501CVT		3-in.—KGAVT0601CVT			
Condensate Freeze Protection Kit	KGAHT0101CFP					
Electronic/Mechanical Air Cleaner	Model AIRA, 902B, MACA, or FILCAB					
Humidifier	Model HUM					
Heat/Energy Recovery Ventilator	Model HRV, ERV					

See notes on page 5.

## SPECIFICATIONS Continued

UNIT SIZE	048080	060080	048100	060100	060120	060140	
<b>RATINGS AND PERFORMANCE</b>							
Input Btuh*	80,000	80,000	100,000	100,000	120,000	138,000	
Output Capacity† ICS (Shaded capacities are specified on rating plate)	Upflow	75,000	75,000	94,000	94,000	113,000	129,000
	Downflow	75,000	75,000	94,000	94,000	113,000	129,000
	Horizontal	75,000	75,000	93,000	93,000	112,000	128,000
AFUE%‡ Nonweatherized ICS	Upflow	93.1	93.1	93.1	93.1	93.1	92.6
	Downflow	91.7	91.7	91.7	91.7	91.7	91.2
	Horizontal	92.5	92.5	92.5	92.5	92.5	92.0
Certified Temperature Rise Range °F	30—60	20—50	45—75	30—60	40—70	50—80	
Certified External Static Pressure	Heating	0.15	0.15	0.20	0.20	0.20	0.20
	Cooling	0.50	0.50	0.50	0.50	0.50	0.50
Airflow CFM‡	Heating	1285	1785	1315	1690	1720	1970
	Cooling	1525	1925	1570	1930	2000	1990
<b>ELECTRICAL</b>							
Unit Volts—Hertz—Phase	115—60—1						
Operating Voltage Range Min—Max**	104—127						
Maximum Unit Amps	10.0	14.1	10.2	14.8	14.6	14.3	
Unit Ampacity††	13.4	18.4	13.5	19.3	19.1	18.8	
Minimum Wire Size	14	12	14	12	12	12	
Maximum Wire Length (Ft)‡‡	28	31	27	30	30	30	
Maximum Fuse or Ckt Bkr Amps (Time-Delay Type Recommended)	15	20	15	20	20	20	
Transformer (24v)	40va						
External Control Power Available	Heating	12va					
	Cooling	21va					
Air Conditioning Blower Relay	Standard						
<b>CONTROLS</b>							
Limit Control	SPST						
Heating Blower Control (Off Delay)	Selectable 90, 120, 150, or 180 Sec						
Burners (Monoport)	4	4	5	5	6	6	
Gas Connection Size	1/2-in. NPT						
<b>GAS CONTROLS</b>							
Gas Valve (Redundant)	Manufacturer	White-Rodgers					
	Min Inlet Pressure (In. wc)	4.5 (Natural Gas)					
	Max Inlet Pressure (In. wc)	13.6 (Natural Gas)					
Ignition Device	Hot Surface						
<b>BLOWER DATA</b>							
Direct-Drive Motor HP (Permanent Split Capacitor)	1/2	3/4	1/2	3/4	3/4	3/4	
Motor Full Load Amps	7.9	11.1	7.9	11.1	11.1	11.1	
RPM (Nominal)—Speeds	1075—4						
Blower Wheel Diameter x Width (In.)	11 x 8	11 x 10	11 x 8	11 x 10	11 x 10	11 x 10	
Filter Size (In.)—Permanent Washable	(1) 16 x 25 x 1	(1) 20 x 25 x 1			(1) 24 x 25 x 1		
<b>FACTORY-AUTHORIZED AND LISTED, DEALER-INSTALLED OPTIONS</b>							
Gas Conversion Kit—Natural-to-Propane	KGANP2901ALL						
Gas Conversion Kit—Propane-to-Natural	KGAPN2301ALL						
Twining Kit—Upflow ONLY	KGATW0601HSI					N/A	
Manufactured (Mobile) Home Kit	KGAMH0101KIT					N/A	
Downflow Base***	KGASB0201ALL						
Vent Termination Kit (Bracket Only for 2 Pipes)	2-in.—KGAVT0101BRA		3-in.—KGAVT0201BRA				
Concentric Vent Termination Kit (Single Exit)	2-in.—KGAVT0501CVT		3-in.—KGAVT0601CVT				
Condensate Freeze Protection Kit	KGAHT0101CFP						
Electronic/Mechanical Air Cleaner	Model AIRA, 902B, MACA, or FILCAB						
Humidifier	Model HUM						
Heat/Energy Recovery Ventilator	Model HRV, ERV						

\* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 2% for each 1000 ft above sea level. In Canada, derate the unit 5% from 2000 to 4500 ft above sea level.

† Capacity and AFUE in accordance with U.S. Government DOE test procedures effective November 10, 1997.

‡ Airflow shown is for bottom only return-air supply with factory-supplied 1-in. washable filter(s).

• For air delivery above 1800 CFM, see Air Delivery table for other options.

• An airflow reduction of up to 7% may occur when using the factory-specified 4 5/16-inch wide, high efficiency media filter.

• For best furnace efficiency when using the 4 5/16-inch wide media filter, adjust the blower speed tap to near the mid-point of the rise range.

\*\* Permissible voltage limits for proper furnace operation.

†† Unit ampacity = 125% of largest component's full load amps plus 100% of all other potential operating components (EAC, humidifier, etc.).

‡‡ Length shown is measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.

\*\*\* Required for installation on combustible floors when no coil box is used, or when any coil box other than a Bryant CD5 or CK5 cased coil is used.

N/A—Not applicable

ICS—Isolated Combustion System

**COMBUSTION-AIR AND VENT PIPING**  
**MAXIMUM ALLOWABLE PIPE LENGTH (FT)**

ALTITUDE ABOVE SEA LEVEL (FT)	UNIT SIZE	TERMINATION TYPE	PIPE DIA (IN.)*	NUMBER OF 90° ELBOWS					
				1	2	3	4	5	6
0 to 2000	024040 036040	2 Pipe or 2-In. Concentric	1	5	NA	NA	NA	NA	NA
			1-1/2	70	70	65	60	60	55
			2	70	70	70	70	70	70
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	20	15	10	5	NA	NA
			2	70	70	70	70	70	70
			1-1/2	10	NA	NA	NA	NA	NA
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	55	50	35	30	30	20
			2-1/2	70	70	70	70	70	70
			2	5	NA	NA	NA	NA	NA
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	40	30	20	20	10	NA
			3	70	70	70	70	70	70
			2-1/2 one disk	10	NA	NA	NA	NA	NA
	060120	2 Pipe or 3-In. Concentric	3†	45	40	35	30	25	20
			3† no disk	70	70	70	70	70	70
2-1/2 one disk			5	NA	NA	NA	NA	NA	
060140	2 Pipe or 3-In. Concentric	3† one disk	40	35	30	25	20	15	
		3† no disk	60	56	52	48	44	40	
		4† no disk	70	70	70	70	70	70	
		2-1/2	70	70	70	70	70	70	
2001 to 3000	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	67	62	57	52	52	47
			2	70	70	70	70	70	70
			1-1/2	17	12	7	NA	NA	NA
	024060 036060 048060	2 Pipe or 2-In. Concentric	2	70	67	66	61	61	61
			2	49	44	30	25	25	15
			2-1/2	70	70	70	70	70	70
	036080 048080 060080	2 Pipe or 2-In. Concentric	2-1/2	35	26	16	16	6	NA
			3	70	70	70	70	66	61
			3	14	9	NA	NA	NA	NA
	048100 060100	2 Pipe or 3-In. Concentric	3† no disk	70	70	63	56	50	43
			4† no disk	70	70	70	70	70	70
			3† one disk	20	15	10	5	NA	NA
	060120	2 Pipe or 3-In. Concentric	3† no disk	39	35	31	27	23	19
			4† no disk	70	70	70	70	70	70
3† one disk			11	6	NA	NA	NA	NA	
4† no disk			70	70	70	70	70	70	
060140	2 Pipe or 3-In. Concentric	3† no disk	30	26	22	18	14	10	
		4† no disk	70	70	70	70	70	70	
		2-1/2	33	24	15	14	5	NA	
		3	70	70	70	66	61	56	
3001 to 4000	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	64	59	54	49	48	43
			2	70	70	70	70	70	70
			1-1/2	16	11	6	NA	NA	NA
	024060 036060 048060	2 Pipe or 2-In. Concentric	2	68	63	62	57	57	56
			2	46	41	28	23	22	13
			2-1/2	70	70	70	70	70	70
	036080 048080 060080	2 Pipe or 2-In. Concentric	2-1/2	33	24	15	14	5	NA
			3	70	70	70	66	61	56
			3† no disk	65	58	51	44	38	31
	048100 060100	2 Pipe or 3-In. Concentric	4† no disk	70	70	70	70	70	70
			3† one disk	11	6	NA	NA	NA	NA
			3† no disk	30	26	22	18	14	10
	060120	2 Pipe or 3-In. Concentric	4† no disk	70	70	70	70	70	70
			3† one disk	11	6	NA	NA	NA	NA
3† no disk			30	26	22	18	14	10	
4† no disk			70	70	70	70	70	70	
060140	2 Pipe or 3-In. Concentric	4† no disk	70	70	70	70	70	70	
		3† one disk	11	6	NA	NA	NA	NA	
		3† no disk	30	26	22	18	14	10	
		4† no disk	70	70	70	70	70	70	
4001 to 5000‡	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	60	55	50	45	44	39
			2	70	70	70	70	70	70
			1-1/2	15	10	5	NA	NA	NA
	024060 036060 048060	2 Pipe or 2-In. Concentric	2	64	59	58	53	52	52
			2	44	39	26	21	20	11
			2-1/2	70	70	70	70	70	70
	036080 048080 060080	2 Pipe or 2-In. Concentric	2-1/2	31	22	13	12	NA	NA
			3	70	70	67	62	57	52
			3† no disk	53	46	40	33	26	20
	048100 060100	2 Pipe or 3-In. Concentric	4† no disk	70	70	70	70	70	70
			3† no disk	21	17	13	9	5	NA
			4† no disk	69	64	59	54	49	44

See notes on page 7.

**MAXIMUM ALLOWABLE PIPE LENGTH (FT) Continued**

ALTITUDE ABOVE SEA LEVEL (FT)	UNIT SIZE	TERMINATION TYPE	PIPE DIA (IN.)*	NUMBER OF 90° ELBOWS					
				1	2	3	4	5	6
5001 to 6000‡	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	57	52	47	42	40	35
			2	70	70	70	70	70	70
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	14	9	NA	NA	NA	NA
			2	60	55	54	49	48	47
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	41	36	23	18	17	8
			2-1/2	70	70	70	70	70	70
	048100 060100	2 Pipe or 3-in Concentric	2-1/2	29	21	12	11	NA	NA
			3	70	67	62	57	52	47
	060120	2 Pipe or 3-In. Concentric	3† no disk	42	35	29	22	15	9
			4† no disk	70	70	70	70	70	70
	060140	2 Pipe or 3-In. Concentric	3† no disk	12	8	NA	NA	NA	NA
			4† no disk	42	37	32	27	22	17
6001 to 7000‡	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	53	48	43	38	37	32
			2	70	70	68	67	66	64
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	13	8	NA	NA	NA	NA
			2	57	52	50	45	44	43
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	38	33	21	16	15	6
			2-1/2	70	70	68	67	66	64
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	27	19	10	9	NA	NA
			3	68	63	58	53	48	43
	060120	2 Pipe or 3-In. Concentric	3† no disk	31	24	18	11	NA	NA
			4† no disk	70	70	70	70	67	62
	060140	2 Pipe or 3-In. Concentric	4† no disk	17	12	7	NA	NA	NA
	7001 to 8000‡	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	49	44	39	34	33
2				66	65	63	62	60	59
024060 036060 048060		2 Pipe or 2-In. Concentric	1-1/2	12	7	NA	NA	NA	NA
			2	53	48	46	41	40	38
036080 048080 060080		2 Pipe or 2-In. Concentric	2	36	31	19	14	12	NA
			2-1/2	66	65	63	62	60	59
048100 060100		2 Pipe or 3-In. Concentric	2-1/2	25	17	8	7	NA	NA
			3	63	58	53	48	43	38
060120		2 Pipe or 3-In. Concentric	3† no disk	20	13	7	NA	NA	NA
			4† no disk	61	56	51	46	41	36
060140				NA					
8001 to 9000‡		024040 036040	2 Pipe or 2-In. Concentric	1-1/2	46	41	36	31	29
	2			62	60	58	56	55	53
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	11	6	NA	NA	NA	NA
			2	49	44	42	37	35	34
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	33	28	17	12	10	NA
			2-1/2	62	60	58	56	55	53
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	23	15	7	5	NA	NA
			3	59	54	49	44	39	34
	060120	2 Pipe or 3-In. Concentric	3† no disk	10	NA	NA	NA	NA	NA
			4† no disk	35	30	25	20	15	10
	060140			NA					
	9001 to 10,000‡	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	42	37	32	27	25
2				57	55	53	51	49	47
024060 036060 048060		2 Pipe or 2-In. Concentric	2	45	40	38	33	31	29
			2	30	25	14	9	7	NA
036080 048080 060080		2 Pipe or 2-In. Concentric	2-1/2	57	55	53	51	49	47
			2-1/2	21	13	5	NA	NA	NA
048100 060100		2 Pipe or 3-In. Concentric	3	54	49	44	39	34	29
			4† no disk	10	5	NA	NA	NA	NA
060140				NA					

\* Disk usage—Unless otherwise specified, use perforated disk assembly (factory-supplied in loose parts bag). If one disk is stated, separate 2 halves of perforated disk assembly and use shouldered disk half. When using shouldered disk half, install screen side toward inlet box.

† Wide radius elbow.

‡ Vent sizing for Canadian installations over 4500 ft (1370m) above sea level are subject to acceptance by the local authorities having jurisdiction.

NA—Not Allowed; pressure switch will not make.

**NOTES:**

1. Do not use pipe size greater than those specified in table or incomplete combustion, flame disturbance, or flame sense lockout may occur.
2. Size both the combustion-air and vent pipe independently, then use the larger diameter for both pipes.
3. Assume two 45° elbows equal one 90° elbow. Long radius elbows are desirable and may be required in some cases.
4. Elbows and pipe sections within the furnace casing and at the vent termination should not be included in vent length or elbow count.
5. The minimum pipe length is 5 ft for all applications.
6. Use 3 in. diameter vent termination kit for installations requiring 4 in. diameter pipe

**MAXIMUM ALLOWABLE EXPOSED VENT PIPE LENGTH (FT) WITH AND WITHOUT INSULATION  
IN WINTER DESIGN TEMPERATURE AMBIENT\***

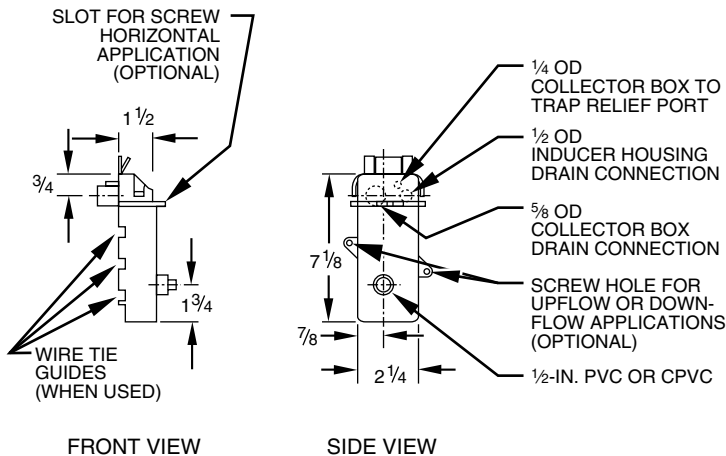
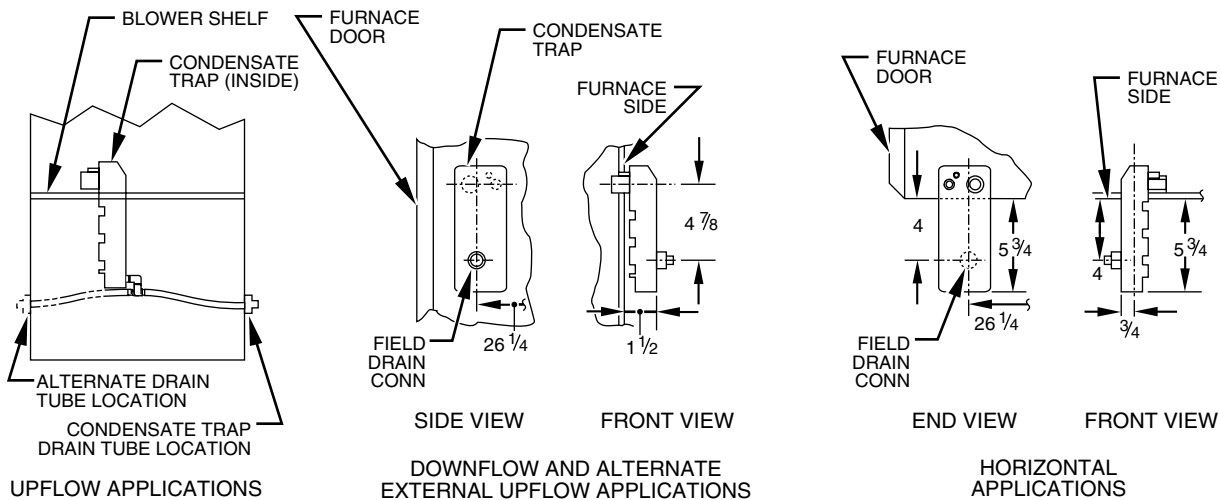
UNIT SIZE	WINTER DESIGN TEMPERATURE (°F)	MAX PIPE DIAMETER (IN.)	WITHOUT INSULATION	WITH 3/8-IN. OR THICKER INSULATION†
024040 036040	20	1-1/2	51	70
	0	1-1/2	28	70
	-20	1-1/2	16	70
024060 036060 048060	20	2	65	70
	0	2	35	70
	-20	2	20	70
036080 048080 060080	20	2-1/2	70	70
	0	2-1/2	47	70
	-20	2-1/2	28	70
048100 060100	20	3	70	70
	0	3	50	70
	-20	3	28	70
060120	20	4	70	70
	0	4	48	70
	-20	4	23	70
060140	20	4	70	70
	0	4	57	70
	-20	4	30	70

\* Pipe length (ft) specified for maximum vent pipe lengths located in unconditioned spaces. Vent pipes located in unconditioned space cannot exceed the total allowable pipe length as specified in Maximum Allowable Pipe Length table.

† Insulation thickness based on R value of 3.5 per in.



# CONDENSATE TRAP



A93026



MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.



As an ENERGY STAR® Partner, Bryant Heating & Cooling Systems has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

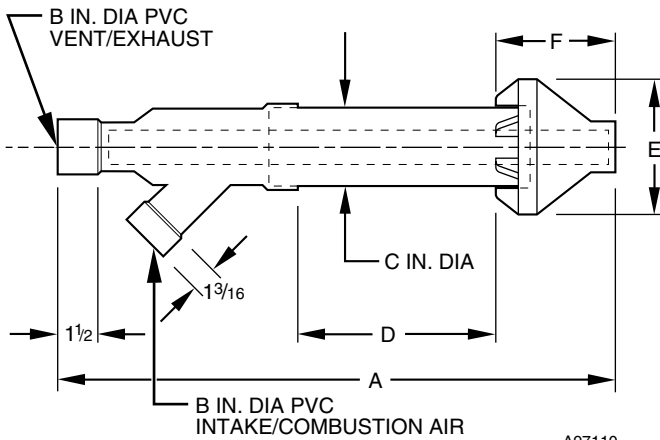


REGISTERED QUALITY SYSTEM

These products are engineered and manufactured under an ISO 9001 registered quality system.

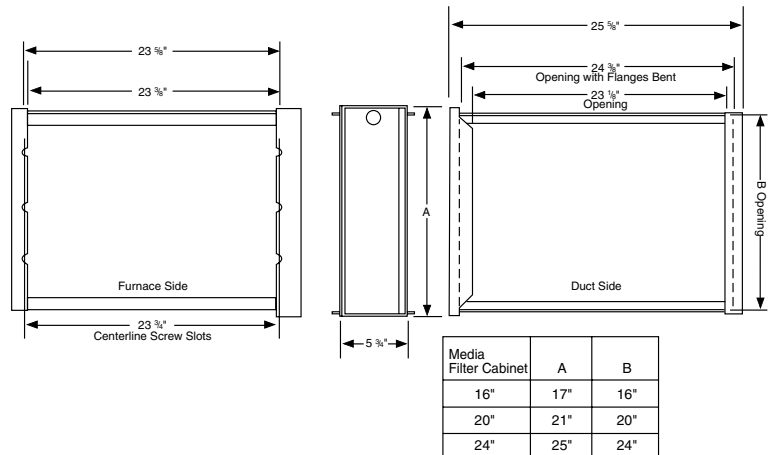
## ACCESSORIES

### CONCENTRIC VENT



A97110

### MEDIA FILTER CABINET



A02183

**NOTE:** See furnace Installation Instructions when venting multiple furnaces near each other.

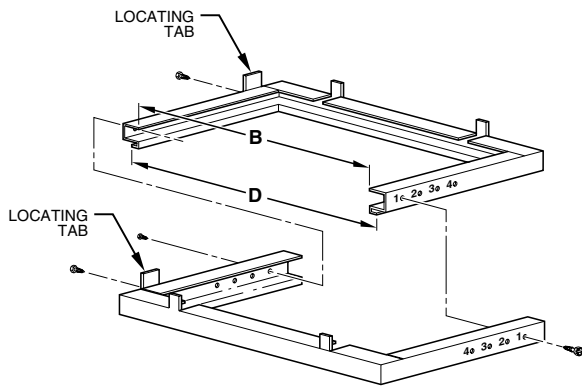
### DIMENSIONS (In.)

PART NO.	A*	B	C	D†	E	F
KGAVT0501CVT	33-3/8	2	3-1/2	16-5/8	6-1/4	5-3/4
KGAVT0601CVT	38-7/8	3	4-1/2	21-1/8	7-3/8	6-1/2

\* Dimension A will change accordingly as dimension D is lengthened or shortened.

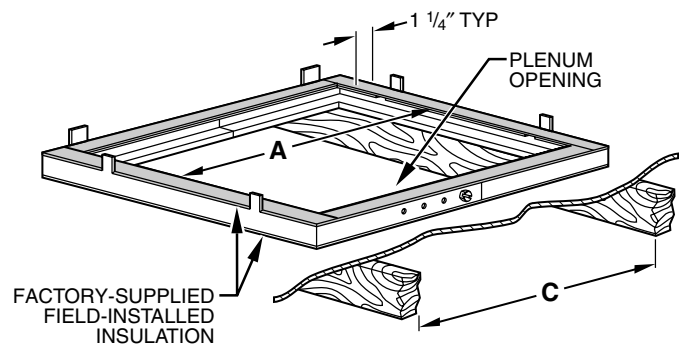
† Dimension D may be lengthened to 60 in. maximum. Dimension D may also be shortened by cutting the pipes provided in the kit to 12 in. minimum.

### ACCESSORY DOWNFLOW SUBBASE



A88207

**Disassembled**



A97427

**Assembled**

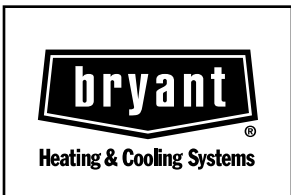
FURNACE CASING WIDTH	FURNACE IN DOWNFLOW APPLICATION	PLENUM OPENING*		FLOOR OPENING		HOLE NO. FOR WIDTH ADJUSTMENT
		A	B	C	D	
17-1/2	Furnace with or without CD5 or CK5 Coil Assembly or KCAKC Coil Box	15-1/8	19	16-3/4	20-3/8	3
21	Furnace with or without CD5 or CK5 Coil Assembly or KCAKC Coil Box	18-5/8	19	20-1/4	20-3/8	2
24-1/2	Furnace with or without CD5 or CK5 Coil Assembly or KCAKC Coil Box	22-1/8	19	23-3/4	20-3/8	1

\* The plenum should be constructed 1/4 in. smaller in width and depth than the plenum dimensions shown above.

**AIR DELIVERY—CFM (With Filter)\***

UNIT SIZE	RETURN-AIR SUPPLY	SPEED	EXTERNAL STATIC PRESSURE (In. wc)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
024040	1 side or bottom	High	1075	1040	995	945	895	840	760	670
		Med-Low	850	825	780	740	685	635	560	480
		Low	740	700	650	620	565	515	455	385
036040	1 side or bottom	High	1470	1415	1400	1285	1215	1120	995	890
		Med-High	1315	1280	1235	1180	1115	1035	930	825
		Med-Low	1125	1110	1085	1045	990	915	830	740
		Low	930	925	910	850	830	770	705	635
024060	1 side or bottom	High	1100	1065	1005	945	900	805	730	610
		Med-Low	890	865	810	765	705	620	540	475
		Low	745	710	670	625	565	505	425	360
036060	1 side or bottom	High	1430	1375	1325	1275	1200	1135	1040	935
		Med-High	1270	1260	1215	1160	1105	1035	950	850
		Med-Low	1070	1055	1045	1015	975	920	850	750
		Low	915	895	885	865	840	800	720	650
048060	1 side or bottom	High	1700	1695	1640	1580	1545	1450	1380	1310
		Med-High	1500	1465	1435	1385	1355	1300	1250	1185
		Med-Low	1325	1295	1265	1230	1190	1150	1105	1050
		Low	1205	1170	1145	1110	1080	1035	990	950
036080	1 side or bottom	High	1535	1470	1405	1330	1245	1160	1065	935
		Med-High	1395	1350	1300	1225	1155	1080	985	880
		Med-Low	1200	1175	1125	1065	1030	970	890	780
		Low	1040	1020	990	960	910	860	785	680
048080	1 side or bottom	High	1750	1685	1635	1575	1525	1445	1380	1310
		Med-High	1495	1455	1405	1355	1305	1250	1185	1120
		Med-Low	1310	1260	1225	1170	1125	1095	1040	980
		Low	1135	1105	1075	1040	995	995	910	860
060080	1 side or bottom	High	2200	2175	2085	2025	1925	1820	1735	1635
		Med-High	2100	2025	1945	1865	1785	1700	1620	1540
		Med-Low	1815	1760	1720	1670	1620	1550	1480	1405
		Low	1560	1555	1515	1460	1435	1390	1340	1270
	both sides or 1 side and bottom	High	2360	2280	2210	2130	2035	1960	1875	1790
	Med-High	1965	1925	1870	1830	1760	1710	1670	1575	
048100	1 side or bottom	High	1740	1705	1660	1615	1570	1500	1425	1355
		Med-High	1500	1470	1445	1410	1375	1330	1280	1210
		Med-Low	1340	1315	1300	1270	1235	1200	1140	1095
		Low	1195	1175	1165	1130	1100	1070	1030	975
060100	1 side or bottom	High	2250	2175	2090	2020	1930	1855	1760	1670
		Med-High	2020	1950	1900	1840	1790	1710	1640	1545
		Med-Low	1725	1690	1660	1630	1575	1520	1460	1370
		Low	1490	1480	1460	1440	1380	1340	1295	1230
	both sides or 1 side and bottom	High	2360	2315	2265	2200	2130	2055	1965	1890
	Med-High	1960	1940	1930	1900	1850	1800	1740	1660	
060120	bottom only	High	2350	2250	2160	2070	2000	1885	1790	1635
		Med-High	2100	2015	1955	1875	1810	1710	1650	1540
		Med-Low	1770	1720	1675	1620	1575	1515	1450	1365
		Low	1545	1520	1465	1415	1365	1325	1265	1185
	both sides or 1 side and bottom	High	2435	2360	2285	2220	2130	2050	1965	1875
	Med-High	2040	2000	1950	1905	1835	1790	1725	1650	
1 side only	High	2255	2190	2115	2045	1965	1890	1800	1710	
Med-High	1985	1930	1890	1840	1780	1720	1645	1560		
060140	bottom only	High	2285	2210	2140	2065	1990	1910	1830	1745
		Med-High	2020	1970	1920	1870	1805	1730	1660	1590
		Med-Low	1675	1650	1620	1590	1560	1510	1450	1390
		Low	1460	1445	1430	1400	1370	1320	1275	1230
	both sides or 1 side and bottom	High	2310	2255	2185	2120	2045	1965	1880	1800
	Med-High	1975	1945	1900	1860	1835	1775	1720	1640	
1 side only	High	2140	2080	2025	1945	1875	1795	1725	1625	
Med-High	1930	1850	1800	1740	1725	1660	1580	1495		

- ‡ • Airflow shown is for bottom only return-air supply with factory-supplied 1-in. washable filter(s).  
 • For air delivery above 1800 CFM, see Air Delivery table for other options.  
 • An airflow reduction of up to 7% may occur when using the factory-specified 4 5/16-inch wide, high efficiency media filter.  
 • For best furnace efficiency when using the 4 5/16-inch wide media filter, adjust the blower speed tap to near the mid-point of the rise range.  
 • For horizontal and downflow applications, use “1 side or bottom” or “bottom only” as an airflow reference.



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE  
WITH INSTALLATION INSTRUCTIONS

Cancels: PDS 350M.40.9