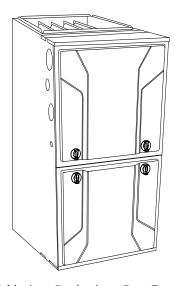
# 915SB

# Legacy™ 95 Single-Stage, 4-Way Multipoise, **Condensing Gas Furnace**



# **Product Data**



The 915SB Multipoise Condensing Gas Furnace features the single-stage Legacy  $^{^{\mathsf{TM}}}$  System. The fixed-speeds, constant torque (FCT) ECM blower motor is at the heart of the electrical efficiency provided by this furnace. With an Annual Fuel Utilization Efficiency (AFUE) of 96.2% AFUE, this furnace provides added savings over standard gas furnaces. This Legacy Gas Furnace features 4-way multipoise installation flexibility, and is available in model eleven sizes. All sizes except the 26,000 BTUH model can be vented for direct vent/two-pipe, ventilated combustion air, or single-pipe applications. The 26,000 BTUH model can use the same 2-pipe venting system using outside air for combustion, but is not considered direct-vent. A Bryant Legacy Control and Legacy Air Conditioner or Heat Pump, can be used to form a complete Legacy Line System. All sizes are design certified in Canada. Specific sizes are design certified for use in Manufactured Housing (Mobile Home) applications when used with factory-approved MH accessory kit.

# PERFORMANCE

- Fixed-speeds, constant torque (FCT) ECM blower motor for electrically efficient operation all year long in heating, cooling and continuous fan operation.
- Single-speed inducer motor, and single-stage gas valve.
- Silicon Nitride PerfectLight<sup>™</sup> Hot Surface Igniter.
- Perfect Humidity® technology removes more moisture than a standard furnace during cooling operation (when installed with a matched air conditioner or heat pump)
- · Adjustable blower speed for heating and cooling.
- Aluminized-steel primary heat exchanger.
- Stainless-steel condensing secondary heat exchanger.

# INSTALLATION FLEXIBILITY

- · 4-way multipoise design for upflow, downflow or horizontal installation, with unique vent elbow for optional venting through-the-cabinet downflow venting capability.
- · Factory-configured ready for upflow applications.
- Ideal height 35" (889 mm) cabinet: short enough for taller coils, but still allows enough room for service.
- Two-pipe venting, single-pipe venting or ventilated combustion air.

#### **APPLICATIONS**

- Approved for Twinning applications with accessory kit (42060E17, 048080E17, 060080E21, 60100E21, 66120E24, 66140E24 models,
- · Approved for Manufactured Housing/Mobile Home applications with MH accessory kit.
- · Convertible to propane with gas conversion accessory kit.

# CERTIFICATIONS

- All sizes meet ENERGY STAR® Verizon 4.1 criteria for gas furnaces: 95%+ AFUE.
- 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.
- All sizes can be installed in air quality management districts with a 40 ng/J NOx emissions requirments.











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	CASING DIMENSIONS (IN.)			RATED HEATING	AFU	JE	ENERGY	HEATING	AIRFLOW	COOLING CFM @	MOTOR	
FURNACE	н	D	W	OUTPUT* BTUH	UPFLOW/ HORIZONTAL	DOWNFLOW	STAR®	HEATING CFM <sup>†</sup>	HEATING ESP (in. W.C.)	0.5 ESP (in. W.C.)	HP	
915SB30026E14	35	29.50	14.20	25,000	96.0%	95.0%	YES	605	0.10	895	1/3	
915SB30040E14	35	29.50	14.20	39,000	96.0%	95.0%	YES	695	0.10	950	1/2	
915SB36040E17	35	29.50	17.50	39,000	96.2%	95.0%	YES	650	0.10	1010	1/2	
915SB36060E14	35	29.50	14.20	58,000	95.0%	95.0%	YES	930	0.12	1120	1/2	
915SB42060E17	35	29.50	17.50	58,000	96.2%	95.0%	YES	1010	0.12	1330	3/4	
915SB48080E17	35	29.50	17.50	78,000	96.2%	95.0%	YES	1325	0.12	1665	3/4	
915SB60080E21	35	29.50	21.00	78,000	96.2%	95.0%	YES	1330	0.12	1855	1	
915SB60100E21	35	29.50	21.00	97,000	96.2%	95.0%	YES	1730	0.15	2125	1	
915SB66100E21	35	29.50	21.00	97,000	96.2%	95.0%	YES	1785	0.15	2065	1	
915SB66120E24	35	29.50	24.00	116,000	96.1%	95.0%	YES	2020	0.20	2105	1	
915SB66140E24	35	29.50	24.00	135,000	95.0%	95.0%	YES	2130	0.20	2310	1	

<sup>\*.</sup> Capacity in accordance with DOE test procedures. Ratings are position dependent. See rating plate.

## FEATURES AND BENEFITS

HYBRID HEAT® Dual Fuel System - This system can provide more control over your monthly energy bills by automatically selecting the most economical method of heating. With HYBRID HEAT components, our system automatically switches between the gas furnace and the electric heat pump as outside temperatures change to maintain greater efficiency and comfort than with any traditional single-source heating system. The heat pump also delivers high-efficiency cooling in the summer

Perfect Light™ Igniter - Bryant's unique SiN igniter is not only physically robust but it is also electrically robust. It is capable of running at line voltage and does not require complex voltage regulators as do other brands. This unique feature further enhances the gas furnace reliability and continues Bryant's tradition of technology leadership and innovation in providing a reliable and durable product.

**Legacy™ ECM Blower Motor** - This basic ECM, or electronically commutated motor, can provide an efficiency enhancement for select Bryant air conditioner or heat pump systems. It uses less electrical power than its PSC counterpart and has 5 speeds.

**Reliable Heat Exchanger Design** - The aluminized steel, clam shell primary heat exchanger has a crimped, no-weld seam create an efficient, robust design for this essential component.

The condensing heat exchanger, a stainless steel fin and tube design, is positioned in the furnace to extract additional heat. Stainless steel coupling box componentry between heat exchangers has exceptional corrosion resistance in both natural gas and propane applications.

**Media Filter Cabinet** - Enhanced indoor air quality in the home is made easier with our media filter cabinet-accessory (purchased separately). When installed as a part of the system, this cabinet allows for easy and convenient addition of a Bryant high efficiency air filter.

**4-Way Multipoise Design** - One model for all applications – there is no need to stock special downflow or horizontal models when one unit will do it all.

# Direct or Single-pipe Venting, or Optional Ventilated Combustion

**Air** - All sizes except the 26,000 BTUH model can be vented for direct vent/two-pipe, ventilated combustion air, or single-pipe applications. The 26,000 BTUH model can use the same 2-pipe venting system using outside air for combustion, but is not considered direct-vent.

**Sealed Combustion System** - This furnace brings in combustion air from outside the furnace, which results in especially quiet operation. By sealing the entire combustion vestibule, the entire furnace can be made quieter, not just the burners.

**Insulated Casing** - Foil-faced insulation in the heat exchanger section of the casing minimizes heat loss.

**Monoport Burners** - The burners are specially designed and finely tuned for smooth, quiet combustion and economical operation.

**Bottom Closure** - Factory-installed for side return; easily removable for bottom return. The multi-use bottom closure can also serve for roll-out protection in horizontal applications, and act as the bottom closure for the optional return air base accessory.

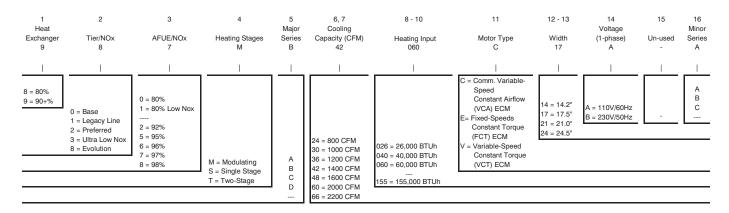
**Blower Access Panel Switch** - Automatically shuts off 115-v power to furnace whenever blower access panel is opened.

**Quality Registration** - Our furnaces are engineered and manufactured under a quality management system registered to ISO 9001.

<sup>†.</sup> Heating CFM at factory default blower motor heating tap settings

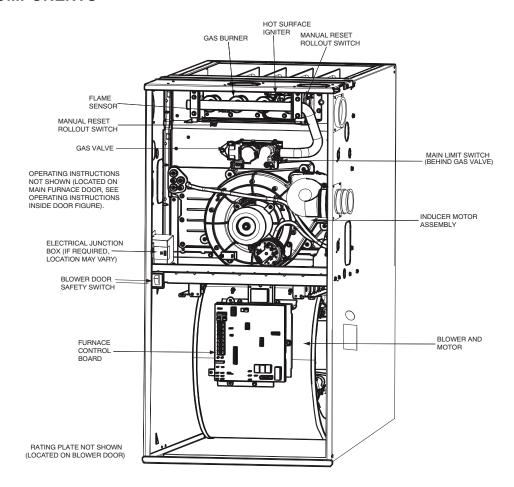
ESP - External Static Pressure

# MODEL NUMBER NOMENCLATURE



A200522

# **FURNACE COMPONENTS**



A190145

# For California Residents:

If installed with a manufactured (mobile) home conversion kit in SCAQMD: This furnace does not meet the SCAQMD Rule 1111 14 ng/J NOx emission limit, and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com

# **SPECIFICATIONS**

The furnace should be sized to provide 100 percent of the design heating load requirement plus any margin that occurs because of furnace model size capacity increments. None of the furnace model sizes can be used if the heating load is 12,000 BTUH or lower. Use Air Conditioning Contractors of America (Manual J and S); American Society of Heating, Refrigerating, and Air-Conditioning Engineers; or other approved engineering method to calculate heating load estimates and select the furnace. Excessive oversizing of the furnace may cause the furnace and/or vent to fail prematurely, customer discomfort and/or vent freezing.

Failure to follow these guidelines is considered faulty installation and/or misapplication of the furnace; and resulting failure, damage, or repairs may impact warranty coverage.

Furnace Mod		30026E14	30040E14	36040E17	36060E14	42060E17							
Heating Capacity and Effici	ency												
Input (BTUh)		26,000	40,000	40,000	60,000	60,000							
Output (BTUh)		25,000	39,000	39,000	58,000	58,000							
Certified Temperature Rise R	ange °F (°C)	25 - 55	40 - 70	40 - 70	45 - 75	40 - 70							
•	` ' '	(14 - 31)	(22 - 39)	(22 - 39)	(25 - 42)	(22 - 39)							
Airflow Capacity and Blowe	r Data												
Rated External Static	Heating	0.10	0.10	0.10	0.12	0.12							
Pressure (in. w.c.)	Cooling	0.50	0.50	0.50	0.50	0.50							
Airflow Delivery @ Rated	Heating	605	695	650	930	1010							
ESP (CFM)	Cooling	895	950	1010	1120	1330							
Cooling Capacity (tons) @	400 CFM/ton	2	2	2.5	2.5	3.5							
CFM/ton	350 CFM/ton	2.50	2.50	3	3	4							
Direct-Drive Motor Type			Electroni	cally Commutated Mo	otor (ECM)								
Direct-Drive Motor HP		1/3	1/2	1/2	1/2	3/4							
Motor Full Load Amps		4.4	6.3	6.8	6.3	8.8							
RPM Range		400 - 1200	600 - 2000	400 - 1200	600 - 2000	400 - 1200							
Speed Selections		5	5	5	5	5							
Blower Wheel Dia x Width	in.	11 x 7	11 x 7	11 x 8	11 x 7	11 x 8							
Air Filtration System				Field Supplied Filter									
Filter Used for Certified Watt	Data			325531-40*									
Electrical Data	Data			020001 10									
	Volts-Hertz-												
Input Voltage	Phase	115-60-1											
Operating	Min-Max			104-127									
Voltage Range	IVIII I-IVIAX			104-127									
Maximum Input Amps	Amps	5.1	7.0	7.5	7.1	9.6							
Unit Ampacity	Amps	7.3	9.7	10.3	9.8	12.9							
Minimum Wire Size	AWG	14	14	14	14	14							
Maximum Wire Length@	Feet	50	38	36	38	28							
Minimum Wire Size	(M)	(15.5)	(11.7)	(10.9)	(11.5)	(8.7)							
Maximum Fuse/Ckt Bkr													
(Time-Delay Type	Amps	15	15	15	15	15							
Recommended)													
Transfomer Capacity (24vac	output)			40 VA	JI								
External Control Power	Heating			27.9 VA									
Available	Cooling	34.6 VA											
Controls	<u> </u>												
Gas Connection Size				1/2" - NPT									
Burners (Monoport)		2	2	2	3	3							
Gas Valve (Redundant)	Manufacturer			White Rodgers	1								
Minimum Inlet Gas pressure				4.50									
Maximum Inlet Gas pressure				13.60									
Manufactured (Mobile) Home				See Accessory Listin	q								
Ignition Device				Silicon Nitride	<u> </u>								
Heating Blower Control													
(Heating Off-Delay)		Adjustable: 90, 120, 150, 180 seconds											
Cooling Blower Control													
(Time Delay Relay)				90 seconds									
Communication System				none									
Thermostat Connections				Com 24V, R, W, G, Y	/								
Accessory Connections		EAC (115vac); HUM (24vac); 1-stg AC (via Y)											
Accessory Connections			EAC (115Va	ic), Holvi (Z4Vac), T-S	ig AC (via 1)								

Furnace	e Model	48080E17	60080E21	60100E21	66100E21	66120E24	66140E24										
Heating Capacity a																	
Input (BTUh)	na Emoionoy	80,000	80,000	100,000	100,000	120,000	140,000										
Output (BTUh)		78,000	78,000	97,000	97,000	117,000	135,000										
Certified Temperatur	o Dico Dongo 0E	40 - 70	40 - 70	40 - 70	40 - 70	40 - 70	45 - 75										
	e Rise Range 'F																
(°C)	151 5 (	(22 - 39)	(22 - 39)	(22 - 39)	(22 - 39)	(22 - 39)	(25 - 42)										
Airflow Capacity ar																	
Rated External	Heating	0.12	0.12	0.15	0.15	0.20	0.20										
Static Pressure (in. w.c.)	Cooling	0.50	0.50	0.50	0.50	0.50	0.50										
Airflow Delivery @	Heating	1325	1330	1730	1785	2020	2130										
Rated ESP (CFM)	Cooling	1665	1855	2125	2065	2105	2310										
Cooling Capacity	400 CFM/ton	4	5	5	5	5	5										
(tons) @ CFM/ton	350 CFM/ton	4.50															
Direct-Drive Motor To		1.00		lectronically Comm			6										
Direct-Drive Motor H	/ 1	3/4	1 1	1	1	v., I 1	1										
Motor Full Load Amp		9.2	11.5	11.7	11.0	11.0	11.7										
	)5																
RPM Range		400 - 1200	400 - 1200	400 - 1200	400 - 1300	400 - 1300	400 - 1200										
Speed Selections		5	5	5	5	5	5										
Blower Wheel Dia x Width	in.	11 x 8	11 x 10	11 x 10	11 x 10	11 x 11	11 x 11										
Air Filtration System				Field Sup	plied Filter												
Filter Used for Certifi	ied Watt Data			32553	31-40*												
Electrical Data	l																
Input Voltage	Volts-Hertz- Phase	115-60-1															
Operating	Tilasc																
Voltage Range	Min-Max		104-127														
Maximum Input Amps	Amps	10	12.3	12.6	12.6	12.4	12.6										
Unit Ampacity	Amps	13.4	16.3	16.7 16.7		16.7	16.7										
Minimum Wire Size	AWG	14	12	12	12	12	12										
Maximum Wire	Feet	27	35	34	34	35	34										
Length@ Minimum	1 661	21	33	34	34	33	34										
Wire Size	(M)	(8.4)	(10.7)	(10.5)	(10.5)	(10.7)	(10.5)										
Maximum Fuse/Ckt																	
Bkr (Time-Delay	A mana	15	20	20	20	20	20										
Туре	Amps	15	20	20	20	20	20										
Recommended)																	
Transfomer Capacity	/ (24vac output)			40	VA												
External Control	Heating																
Power Available	Cooling																
Controls	County			54.0													
Gas Connection Size	e I			1/2" -	· NPT												
Burners (Monoport)	-	4	4	5	5	6	7										
Gas Valve	+	4	4	l J	<u>J</u>	L 0	<u>'</u>										
	Manufacturer			White F	Rodgers												
(Redundant)	management (in a constant																
Minimum Inlet Gas p					50												
Maximum Inlet Gas					.60												
Manufactured (Mobil	le) Home Kit				sory Listing												
Ignition Device				Silicon	Nitride												
Heating Blower Conf	trol	Adjustable: 90, 120, 150, 180 seconds															
(Heating Off-Delay)		Adjustable: 90, 120, 150, 180 seconds															
Cooling Blower Cont	trol			00													
(Time Delay Relay)				90 se	conds												
Communication Syst	tem			no	ne												
Thermostat Connect		Com 24V, R, W, G, Y															
Accessory Connection			FΔC			ia Y)											
Accessory Connection	0110		LAC	, (110 vac), 110 W (2	vacj, 1-sig AC (V	ш I <i>)</i>	EAC (115vac); HUM (24vac); 1-stg AC (via Y)										

# **ACCESSORIES**

DESCRIPTION	PART NUMBER	30026E14	30040E14	36040E17	36060E14	42060E17					
Vent Kit - Through the Cabinet	KGADC0101BVC	X	Х	Х	X	Х					
Vent Terminal - Concentric - 2" (51 mm)	KGAVT0701CVT					•					
Vent Terminal - Concentric - 3" (76 mm)	KGAVT0801CVT										
Vent Terminal Bracket - 2" (51 mm)	KGAVT0101BRA	3									
Vent Terminal Bracket - 3" (76 mm)	KGAVT0201BRA	_									
Vent Kit - Rubber Coupling	KGAAC0101RVC										
Freeze Protect Kit - Condensate Drain Line Tape	KGAHT0101CFP	X X X X X									
Freeze Protect Kit - Condensate Trap with Heat Pad	KGAHT0201CFP	X	X	Х	X	Х					
CPVC to PVC Drain Adapters - 1/2" CPVC to 3/4" PVC	KGAAD0110PVC	X	Х	Х	Х	Х					
Horizontal Trap Grommet - Direct Vent	KGACK0101HCK		All	2-Pipe Horizo	ntal						
Condensate Neutralizer Kit	P908-0001*	Х	Х	Х	Х	Х					
External Trap Kit	KGBET0201ETK	X	X	X	X	Х					
Downflow Furnace Base Kit for Combustible Floors	KGASB0201ALL	X	Х	X	X	Х					
Coil Adapter Kits - No Offset	KGADA0101ALL	X	Х	X	X	Х					
Coil Adapter Kits - Single Offset	KGADA0201ALL	X	X	X	X	Х					
Coil Adapter Kits - Double Offset	KGADA0301ALL	X	X	X	X	Х					
Return Air Base (Upflow Applications) 14.0-in. wide	KGARP0301B14	X	X	X	-						
Return Air Base (Upflow Applications) 17.5-in. wide	KGARP0301B17	-	-	Х	-	Х					
IAQ Device Duct Adapters 20.0-in. IAQ to 16 in. Side	KGAAD0101MEC		20"	x25" IAQ Devi	000						
Return	KGAADU TU TIVIEC		20	XZ5 IAQ Devi	ces						
IAQ Device Duct Adapters 24.0-in. IAQ to 16 in. Side	KGAAD0201MEC		24"	x25" IAQ Devi	000						
Return	NGAAD020 INIEC		24	XZ3 IAQ DEVI	Ces						
Mobile Home Kit	KGCMH0601KIT	-	Х	X	X	Х					
Gas Conversion Kit - Nat to LP	AGAGC9NPL01A	X	-	-	-	-					
Gas Conversion Kit - LP to Nat	AGAGC9PNL01A	X	-	-	-	-					
Gas Conversion Kit - Nat to LP	AGAGC9NPS01B	-	X	X	X	X					
Gas Conversion Kit - LP to Nat	AGAGC9PNS01B	-	Х	X	X	X					
Gas Valve Tower Port Adapter Kit	92-1003 <sup>*</sup>	X	X	X	X	X					
Twinning Kit	AGATWNDTE01A	-	-	-	-	Х					
Blower Speed Tap Jumper Kit (10 piece)	AGABLRJMP10A	Х	Х	Х	X	Х					
External Bottom ReturnFilter Rack - 14.5 x 25 inches (366	EU04405 0*	Х	Х		Х						
x 635 mm)	FHG1425-2*	^	^	-	^	-					
External Bottom ReturnFilter Rack - 16 x 25 inches (406 x	FHG1625-2*		_	Х	_	Х					
635 mm)	FHG1025-2			^_	-	^_					
Filter Washable - 16x25x3/4 (406x635x19 mm)	325531-402*	X X X X									

<sup>\*.</sup> Purchased from RCD Components X = Used with the model furnace

# **ACCESSORIES** (continued)

DESCRIPTION	PART NUMBER	48080E17	60080E21	60100E21	66100E21	66120E24	66140E24
Vent Kit - Through the Cabinet	KGADC0101BVC	X	Х	Х	X	Х	X
Vent Terminal - Concentric - 2" (51 mm)	KGAVT0701CVT				"	'	
Vent Terminal - Concentric - 3" (76 mm)	KGAVT0801CVT						
Vent Terminal Bracket - 2" (51 mm)	KGAVT0101BRA			See Vent	ing Tables		
Vent Terminal Bracket - 3" (76 mm)	KGAVT0201BRA				J		
Vent Kit - Rubber Coupling	KGAAC0101RVC						
Freeze Protect Kit - Condensate Drain Line		.,		.,		.,	.,
Tape	KGAHT0101CFP	X	X	X	X	X	X
Freeze Protect Kit - Condensate Trap with Heat							
Pad	KGAHT0201CFP	X	X	X	X	X	X
CPVC to PVC Drain Adapters - 1/2" CPVC to							
3/4" PVC	KGAAD0110PVC	X	X	X	X	X	X
Horizontal Trap Grommet - Direct Vent	KGACK0101HCK			All 2-Pine	Horizontal		l
Condensate Neutralizer Kit	P908-0001*	Х	Х	X	X	Х	Х
		X	X	X		X	X
External Trap Kit  Downflow Furnace Base Kit for Combustible	KGBET0201ETK	X	X	Α	X	Χ	Λ
Floors	KGASB0201ALL	Х	Х	Х	X	Х	Х
Coil Adapter Kits - No Offset	KGADA0101ALL	Χ	X	X	Х	Х	Χ
Coil Adapter Kits - Single Offset	KGADA0201ALL	X	X	X	X	X	X
Coil Adapter Kits - Double Offset	KGADA0301ALL	X	X	X	X	X	X
Return Air Base (Upflow Applications) 17.5-in.	NOADA000 TALL		Λ	Α		Α	Λ
wide	KGARP0301B17	X	-	-	-	-	-
Return Air Base (Upflow Applications) 21.0-in.							
wide	KGARP0301B21	-	X	X	X	-	-
Return Air Base (Upflow Applications) 24.5-in.							
wide	KGARP0301B24	-	-	-	-	X	X
IAQ Device Duct Adapters 20.0-in. IAQ to 16 in.							
Side Return	KGAAD0101MEC			20"x25" IA	Q Devices		
IAQ Device Duct Adapters 24.0-in. IAQ to 16 in.							
Side Return	KGAAD0201MEC			24"x25" IA	Q Devices		
Mobile Home Kit	KGCMH0601KIT	Х	Х	Х	Х	Х	I
Gas Conversion Kit - Nat to LP	AGAGC9NPS01B	X	X	X	X	X	X
Gas Conversion Kit - Nat to LP  Gas Conversion Kit - LP to Nat							
	AGAGC9PNS01B	X	X	X	X	X	X
Gas Valve Tower Port Adapter Kit	92-1003 <sup>^</sup>	Х	Х	X	Х	X	Х
Twinning Kit	AGATWNDTE01 A	Х	Х	Х		Х	Х
Blower Speed Tap Jumper Kit (10 piece)	AGABLRJMP10A	X	X	X	X	X	X
External Bottom Return Filter Rack - 16 x 25							-
inches (406 x 635 mm)	FHG1625-2 <sup>*</sup>	Х	-	-	-	-	-
External Bottom Return Filter Rack - 20x 25	_						
inches (508 x 635 mm)	FHG2025-2*	-	X	X	X		
External Bottom Return Filter Rack - 24.5 x 24	_					_	_
inches (607 x 607 mm)	FHG2424-2*	-	-	-	-	X	Х
Filter Washable - 16x25x3/4 (406x635x19 mm)	325531-402*	Х	-	_	_	_	_
Filter Washable - 20x25x3/4 (508x635x19 mm)	325531-402*	-	X	X	X	_	_
Filter Washable - 24x25x3/4 (610x635x19 mm)	325531-403 325531-404 <sup>*</sup>	_	-	-	-	X	X
1 IIICT VVASITADIG - 2472383/4 (0108033819 IIIIII)	323331-404	_	_	_		^	_ ^

<sup>\*.</sup> Order from RCD Components X = Used with the model furnace

# **ACCESSORIES** (continued)

	DESCRIPTION	
Gas Orifice Kit - #42 (Nat Gas)	LH32DB207	
Gas Orifice Kit - #43 (Nat Gas)	LH32DB202	
Gas Orifice Kit - #44 (Nat Gas)	LH32DB200	
Gas Orifice Kit - #45 (Nat Gas)	LH32DB205	
Gas Orifice Kit - #46 (Nat Gas)	LH32DB208	
Gas Orifice Kit - #47 (Nat Gas)	LH32DB078	See Installation Instructions for model,
Gas Orifice Kit - #48 (Nat Gas)	LH32DB076	altitude, and heat value usages.
Gas Orifice Kit - #54 (LP)	LH32DB203	
Gas Orifice Kit - #55 (LP)	LH32DB201	
Gas Orifice Kit - #56 (LP)	LH32DB206	
Gas Orifice Kit - 1.25mm (LP)	LH32DB209	
Gas Orifice Kit - 1.30mm (LP)	LH32DB210	

DESCRIPTION	ACCESSORY
HUMIDIFIER	Model HUM
HEAT RECOVERY VENTILATOR	Model HRV
ENERGY RECOVERY VENTILATOR	Model ERV
UV LIGHTS	Model UVL

Bryant has a wide variety of thermostats for your system, please visit www.Bryant.com to see all thermostat and IAQ products.

DESCRIPTION	ACCESSORY	14"	17"	21"	24"
Bryant Carbon Monoxide Alarm (10 pack)	COALMBBNRB02-A10	X	Х	Х	Х
Bryant Evolution Air Purifier - 16x25 (407x635 mm)	DGAPAXX1625	X	Х	-	-
Bryant Evolution Air Purifier - 20x25 (508x635 mm)	DGAPAXX2025	-	-	Х	Х
Bryant Evolution Air Purifier Repl. Filter- 16x25 (407x635 mm)	PGAPXCAR1625A02	X	Х	-	-
Bryant Evolution Air Purifier Repl. Filter- 20x25 (508x635 mm)	PGAPXCAR2025A02	-	-	Х	Х
Cartridge Media Filter - 16" (407 mm) (MERV 11)	FILXXCAR0116	X	Х	-	-
Cartridge Media Filter - 16" (407 mm) (MERV 8)	FILXXCAR0016	X	Х	-	-
Cartridge Media Filter - 20" (508 mm) (MERV 8)	FILXXCAR0020	-	-	Х	-
Cartridge Media Filter - 20" (508 mm) (MERV11)	FILXXCAR0120	-	-	Х	-
Cartridge Media Filter - 24" (610 mm) (MERV 8)	FILXXCAR0024	-	-	-	X
Cartridge Media Filter - 24" (610 mm) (MERV11)	FILXXCAR0124	-	-	-	Х
EZ Flex Cabinet Side or Bottom - 16"	EZXCAB0016	X	Х	-	-
EZ Flex Cabinet Side or Bottom - 20"	EZXCAB0020	-	-	Х	Х
EZ Flex Replacement Filters 16" MERV 10	EXPXXFIL0016	X	Х	-	-
EZ Flex Replacement Filters 16" MERV 13	EXPXXFIL0316	X	Х	-	-
EZ Flex Replacement Filters 20" MERV 10	EXPXXFIL0020	-	-	Х	-
EZ Flex Replacement Filters 20" MERV 13	EXPXXFIL0320	-	-	Х	-
EZ Flex Replacement Filters 24" MERV 10	EXPXXFIL0024	-	-	-	X
EZ Flex Replacement Filters 24" MERV 13	EXPXXFIL0324	-	-	-	X
EZ-Flex Filter with End Caps - 16" (407 mm) (MERV 10)	EXPXXUNV0016	X	Х	-	-
EZ-Flex Filter with End Caps - 16" (407 mm) (MERV 13)	EXPXXUNV0316	X	Х	-	-
EZ-Flex Filter with End Caps - 20" (508 mm) (MERV 10)	EXPXXUNV0020	-	-	Х	-
EZ-Flex Filter with End Caps - 20" (508 mm) (MERV 13)	EXPXXUNV0320	-	-	Х	-
EZ-Flex Filter with End Caps - 24" (610 mm) (MERV 10)	EXPXXUNV0024	-	-	-	X
EZ-Flex Filter with End Caps - 24" (610 mm) (MERV 13)	EXPXXUNV0324	-	-	-	Х
Media Filter Cabinet - 20"	FILCABXL0020	-	-	Х	-
Media Filter Cabinet - 24"	FILCABXL0024	-	-	-	Х
Media Filter Cabinet -16"	FILCABXL0016	X	Х	-	-

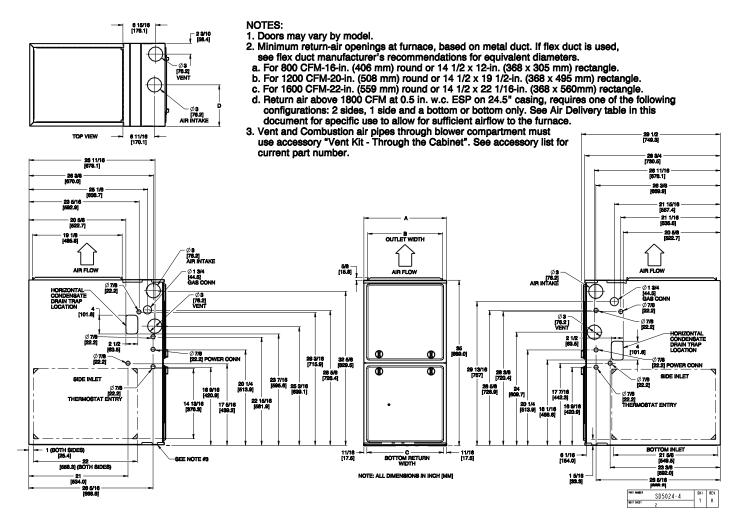
# Air Delivery - CFM (Bottom Return With Filter)

	WIRE LEAD	SPEED			EXTE	RNAL S	TATIC I	PRESS	URE (IN	I.W.C.)		
UNIT SIZE	COLOR	TAPS <sup>2, 3</sup> (Function)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
	Black	Cooling. Do not use for heating	1045	1010	975	935	895	855	810	760	715	670
	Yellow	Alt Cooling or alt Heating	820	770	730	680	630	585	530	480	435	385
30026E14	Orange	Alt Cooling or alt Heating	655	600	550	495	435	385	335	265	-	-
	Blue <sup>7</sup>	Heating or alt Cooling	605	545	490	435	375	335	255	-	-	-
	Red <sup>7</sup>	Alt Cooling. Do not use for heating	480	415	360	305	235	-	-	-	-	-
	Gray	Cooling. Do not use for heating	1050	1025	1000	975	950	920	895	870	845	820
00040=44	Yellow	Alt Cooling. Do not use for heating	920	890	860	830	805	775	745	715	690	660
30040E14	Orange Blue	Alt Cooling or alt Heating Heating or alt Cooling	735 695	700 660	665 625	630 590	595 555	555 515	525 480	490 445	450 405	415 370
		Alt Cooling. Do not use for heating	540	495	455	410	365	320	280	235	403	-
	Red <sup>7</sup>	S S										
	Gray	Cooling. Do not use for heating  Alt Cooling. Do not use for heating	1180 880	1140 845	1100 810	1055 780	1010 745	960 710	915 675	860 640	805 600	735 570
00040545	Yellow Blue	Heating or alt Cooling	650	610	560	515	470	435	395	360	325	265
36040E17		Alt Cooling. Do not use for heating	525	460	405	350	320	275	210	-	-	-
	Orange <sup>7</sup>								210		_	
	Red <sup>7</sup>	Alt Cooling. Do not use for heating	515	420	350	310	270	205	-	-	-	-
	Gray	Cooling. Do not use for heating	1225	1200	1175	1145	1120	1095	1065	1040	1015	990
00000544	Yellow	Alt Cooling. Do not use for heating	1105 940	1080	1050 875	1020	990 810	965	935	905	880	850
36060E14	Blue	Heating or alt Cooling	725	910 690	650	845 610	570	775 530	745 490	710 445	680 405	645 365
	Orange	Alt Cooling or alt Heating	545	495	445	395	345	295	245	-	403	-
	Red <sup>7</sup>	Alt Cooling. Do not use for heating		1445	1405	1370	1330	1290	1255			
	Gray Yellow	Cooling. Do not use for heating  Alt Cooling or alt Heating	1475 1230	1190	1155	1120	1085	1050	1005	1215 970	1175 925	1140 885
42060E17	Orange	Alt Cooling or alt Heating  Alt Cooling or alt Heating	1070	1030	990	950	920	875	840	800	755	715
42000L17	Blue	Heating or alt Cooling	1020	975	940	900	860	820	775	740	690	650
	Red	Alt Cooling. Do not use for heating	700	590	535	485	460	390	340	300	275	210
	Gray <sup>5, 6</sup>	Cooling. Do not use for heating	1820	1790	1755	1710	1665	1620	1570	1525	1480	1435
	Yellow	Alt Cooling or alt Heating	1455	1420	1380	1345	1310	1275	1240	1205	1170	1135
48080E17	Blue	Heating or alt Cooling	1335	1295	1260	1220	1185	1150	1110	1075	1040	1005
	Orange	Alt Cooling or alt Heating	1110	1065	1020	980	935	895	850	810	770	725
	Red <sup>7</sup>	Alt Cooling. Do not use for heating	425	335	240	-	-	-	-	-	-	-
	Gray <sup>5, 6</sup>	Cooling. Do not use for heating	2045	1995	1950	1900	1855	1805	1760	1710	1660	1615
	Yellow	Alt Cooling. Do not use for heating	1665	1625	1575	1530	1480	1435	1385	1340	1285	1240
60080E21	Orange	Alt Cooling or alt Heating	1475	1420	1370	1320	1270	1220	1170	1125	1070	1025
	Blue	Heating or alt Cooling	1345	1290	1235	1180	1130	1080	1025	975	935	885
	Red	Alt Cooling. Do not use for heating	1155	1080	1015	960	895	845	790	735	675	620
	Gray 5, 6	Cooling. Do not use for heating	2280	2240	2200	2165	2125	2085	2020	1910	1795	1665
	Yellow <sup>5, 6</sup>	Alt Cooling. Do not use for heating	1860	1815	1775	1730	1690	1645	1605	1560	1515	1465
60100E21	Blue	Heating or alt Cooling	1755	1710	1665	1620	1580	1535	1485	1440	1390	1340
	Orange	Alt Cooling or alt Heating	1530	1480	1425	1380	1325	1275	1215	1160	1110	1060
	Red	Cooling. Do not use for heating	1340	1285	1230	1170	1110	1050	990	930	875	820
	Gray <sup>5, 6</sup>	Cooling. Do not use for heating	2215	2180	2145	2105	2065	2025	1985	1940	1900	1860
	Yellow <sup>5, 6</sup>	Alt Cooling. Do not use for heating	2115	2080	2035	2000	1960	1920	1880	1835	1790	1740
66100E21	Orange <sup>5, 6</sup>	Alt Cooling. Do not use for heating	1975	1935	1890	1850	1805	1760	1720	1670	1620	1570
00100221	Orange 5,6	<u> </u>	_									
	Blue 5, 6	Heating or alt Cooling	1810	1765	1715	1670	1620	1570	1515	1460	1405	1355
	Red	Alt Cooling. Do not use for heating	1530	1475	1425	1360	1300	1240	1175	1115	1055	1000
	Gray <sup>5, 6</sup>	Cooling. Do not use for heating	2310	2255	2205	2155	2105	2055	2005	1955	1910	1885
00400=0:	Blue <sup>5, 6</sup>	Heating or alt Cooling	2065	2020	1970	1915	1860	1805	1740	1690	1635	1580
66120E24	Yellow <sup>5, 6</sup>	Alt Cooling or alt Heating	1850	1800	1745	1690	1640	1585	1530	1475	1420	1360
	Orange	Alt Cooling. Do not use for heating	1500	1440	1380	1320	1260	1205	1145	1085	1035	955
	Red	Alt Cooling. Do not use for heating		960	875	805	710	630	560	490	420	355
	Gray <sup>5, 6</sup> Cooling. Do not use for		2505	2465	2425	2370	2310	2250	2180	2090	1955	1810
	Blue <sup>5, 6</sup>	Heating or alt Cooling	2180	2130	2085	2035	1990	1945	1900	1850	1800	1755
66140E24	Yellow <sup>5, 6</sup>	Alt Cooling or alt Heating	1910	1855	1810	1760	1705	1655	1605	1555	1505	1460
	Orange	Alt Cooling. Do not use for heating	1560	1505	1445	1380	1325	1265	1210	1155	1100	1040
	Red <sup>7</sup>	855	760	665	565	470	385	305	-	-	-	
	ivea	Alt Cooling. Do not use for heating	000	, 50	000	000	770	000	000		L	

#### NOTE:

- 1. A filter is required for each return-air inlet. Airflow performance includes a 3/4-in. (19 mm) washable filter media (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. The "Function" column identifies which speed taps can be used for heating.
- 4. If the same motor speed tap is needed for heating and cooling, a Jumper Wire accessory kit is available, see Product Data accessories for the current Jumper Wire accessory part number. Reference the "Start-up, Adjustments, and Safety Check" section of installation instructions for further Jumper Wire instructions.
- 5. Airflows over 1800 CFM require bottom return, two-side return, or bottom and side return. A minimum filter size of 20" x 25" (508 x 635 mm) is required.
- 6. 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.
- 7. The "-" entry indicates an unstable operating condition.

# **DIMENSIONAL DRAWING**



A180203

					711002
FUDNACE CIZE	Α	В	С	D	SHIP WT.
FURNACE SIZE	CABINET WIDTH	OUTLET WIDTH	BOTTOM INLET WIDTH	AIR INTAKE	LB (KG)
30026E14	14-3/16 (361)	12-1/2 (319)	12-9/16 (322)	7-1/8 (181)	118.0 (53.5)
30040E14	14-3/16 (361)	12-1/2 (319)	12-9/16 (322)	7-1/8 (181)	120 (54.4)
36040E17	17-1/2 (445)	15-7/8 (403)	16 (406)	8-3/4 (222)	126.5 (57.4)
36060E14	14-3/16 (361)	12-1/2 (319)	12-9/16 (322)	7-1/8 (181)	129 (58.5)
42060E17	17-1/2 (445)	15-7/8 (403)	16 (406)	8-3/4 (222)	138.5 (62.8)
48080E17	17-1/2 (445)	15-7/8 (403)	16 (406)	8-3/4 (222)	146.5 (66.5)
60080E21	21 (533)	19-3/8 (492)	19-1/2 (495)	10-1/2 (267)	154.5 (70.1)
60100E21	21 (533)	19-3/8 (492)	19-1/2 (495)	10-1/2 (267)	164.5 (74.6)
66100E21	21 (533)	19-3/8 (492)	19-1/2 (495)	10-1/2 (267)	164.5 (74.6)
66120E24	24-1/2 (622)	22-7/8 (581)	23 (584)	12-1/4 (311)	179.5 (81.4)
66140E24	24-1/2 (622)	22-7/8 (581)	23 (584)	12-1/4 (311)	189 (85.7)

# MAXIMUM ALLOWABLE EXPOSED VENT LENGTH

# Maximum Allowable Exposed Vent Lengths in Unconditioned Space Insulation Table - Ft.

	Unit	Init 26,000* BTUH													
	Size	Unins	ulation	3/8-in. In	sulation	1/2-in. Insulation									
Winter Design	Pipe Dia. in.	1 ½	2	1 ½	2	1 ½	2								
Temp	20	20	20	50	45	60	50								
°F	0	5	5	25	20	30	25								
	-20			15	10	20	15								
	-40			10	5	15	10								

					40,0	00* B	TUH				60,000 BTUH												
	Unit Size	Uni	Jninsulated 3/8-in. 1/2-in. Insulation Insulation					Uninsulated					3/8-in. Insulation 1/2-in. Insul					sulati	ion				
Winter Design	Pipe Dia. in.	1 ½	2	2 ½	1 ½	2	2 ½	1 ½	2	2 1/2		1 ½	2	2 ½	3	1 ½	2	2 1/2	3	1 ½	2	2 ½	3
Temp °F	20	20	20	20	20	50	45	20	60	50		20	30	30	25	20	75	65	60	20	85	75	65
	0	10	5	5	20	25	20	20	30	25		15	15	10	10	20	40	30	25	20	45	40	30
	-20	5			20	15	10	20	20	15		10	5			20	25	20	15	20	30	25	20
	-40				15	10	5	15	15	10		5				20	15	15	10	20	20	15	10

	Unit Size							80	,000 BT	UH						
	Unit Size		Uı	ninsulat	ed			3/8-i	n. Insula	ation			1/2-i	n. Insula	ation	
Winter	Pipe Dia. in.	1 ½	2	2 ½	3	4	1 1/2	2	2 1/2	3	4	1 1/2	2	2 1/2	3	4
Design	20	15	40	40	35	30	15	50	90	75	65	15	50	70	70	70
Temp °F	0	15	20	15	10	5	15	50	45	35	30	15	50	50	40	35
	-20	15	10	5			15	35	30	20	15	15	40	30	25	15
	-40	10	5				15	25	20	15	5	15	30	25	20	10

	Unit Size					10	00,000	BTL	ΙΗ								120	,000 B	ΓUΗ			
	Unit Size	Ų	Jnins	ulate	d	3/8	-in. In	sulat	ion	1/2	-in. Ir	sulat	ion	Un	insula	ted	3/8-in	. Insul	ation	1/2-i	n. Insu	lation
Winter Design	Pipe Dia. in.	2	2 ½	3	4	2	21/2	3	4	2	21/2	3	4	2 1/2	3	4	2 ½	3	4	2 ½	3	4
Temp °F	20	20	50	40	35	20	80	95	80	20	80	105	90	10	50	40	10	75	95	10	75	105
Temp 1	0	20	20	15	10	20	55	45	35	20	65	55	45	10	20	15	10	55	45	10	65	50
	-20	15	10	5		20	35	30	20	20	45	35	25	10	10		10	35	25	10	45	30
	-40	10	5			20	25	20	10	20	30	25	15	10	5		10	25	15	10	30	20

	Unit Size				140,	000 <sup>*</sup> B	TUH			
		Un	insula	ted	3/8-ir	ı. Insul	ation	1/2-ir	ı. Insul	lation
Winter Design	Pipe Dia. in.	2 ½	3	4	2 1/2	3	4	2 ½	3	4
Temp °F	20	5	55	50	5	65	105	5	65	125
	0	5	25	15	5	65	50	5	65	60
	-20	5	10	5	5	45	30	5	50	40
	-40	5	5		5	30	20	5	35	25

<sup>\*.</sup> Not all model families have this size.

# Maximum Allowable Exposed Vent Length in Unconditioned Space - Meters

	Unit			26,000*	BTUH		
	Size	Unins	ulation	3/8-in. In	sulation	1/2-in. In	sulation
Winter	Pipe	38	51	38	51	38	51
Design	Dia. mm	•	•		•		•
Temp	-7	6.1	6.1	15.2	13.7	18.3	15.2
°C	-18	1.5	1.5	7.6	6.1	9.1	7.6
	-29			4.6	3.0	6.1	4.6
	-40			3.0	1.5	4.6	3.0

	Unit				40,0	00 BT	UH								6	0,000	BTU	1				
	Size	Uni	insula	ted		3/8-in. sulatio			1/2-in. sulatio		_	Jnins	ulated	l	3/8	3-in. In	sulati	on	1/2	!-in. In	sulati	on
Winter Design	Pipe Dia. mm	38	51	64	38	51	64	38	51	64	38	51	64	76	38	51	64	76	38	51	64	76
Temp °C	-7	6.1	6.1	6.1	6.1	15.2	13.7	6.1	18.3	15.2	6.1	9.1	9.1	7.6	6.1	22.9	19.8	18.3	6.1	25.9	22.9	19.8
	-18	3.0	1.5	1.5	6.1	7.6	6.1	6.1	9.1	7.6	4.6	4.6	3.0	3.0	6.1	12.2	9.1	7.6	6.1	13.7	12.2	9.1
	-29	1.5			6.1	4.6	3.0	6.1	6.1	4.6	3.0	1.5			6.1	7.6	6.1	4.6	6.1	9.1	7.6	6.1
	-40				4.6	3.0	1.5	4.6	4.6	3.0	1.5				6.1	4.6	4.6	3.0	6.1	6.1	4.6	3.0

	Unit							80	,000 BT	UH						
	Size		U	ninsulat	ed			3/8-i	n. Insula	ation			1/2-i	n. Insula	ation	
Winter Design	Pipe Dia. mm	38	51	64	76	102	38	51	64	76	102	38	51	64	76	102
Temp °C	-7	4.6	12.2	12.2	10.7	9.1	4.6	15.2	27.4	22.9	19.8	4.6	15.2	21.3	21.3	21.3
Temp 0	-18	4.6	6.1	4.6	3.0	1.5	4.6	15.2	13.7	10.7	9.1	4.6	15.2	15.2	12.2	10.7
	-29	4.6	3.0	1.5			4.6	10.7	9.1	6.1	4.6	4.6	12.2	9.1	7.6	4.6
	-40	3.0	1.5				4.6	7.6	6.1	4.6	1.5	4.6	9.1	7.6	6.1	3.0

	Unit					1	00,000	BTU	Н								120,	000 B	TUH			
	Size		Unins	ulated	t	3/8	3-in. In	sulati	ion	1/2	2-in. Ir	sulat	ion	Un	insula	ted		3/8-in. sulatio			1/2-in sulati	
Winter Design Temp	Pipe Dia. mm	51	64	76	102	51	64	76	102	51	64	76	102	64	76	102	64	76	102	64	76	102
°C	-7	6.1	15.2	12.2	10.7	6.1	24.4	28.9	24.4	6.1	24.4	32.0	27.4	3.0	15.2	12.2	3.0	22.9	28.9	3.0	22.9	32.0
	-18	6.1	6.1	4.6	3.0	6.1	16.8	13.7	10.7	6.1	19.8	16.7	13.7	3.0	6.1	4.6	3.0	16.8	13.7	3.0	19.8	15.2
	-29	4.6	3.0	1.5		6.1	10.7	9.1	6.1	6.1	13.7	10.7	7.6	3.0	3.0		3.0	10.7	7.6	3.0	13.7	9.1
	-40	3.0	1.5			6.1	7.6	6.1	3.0	6.1	9.1	7.6	4.6	3.0	1.5		3.0	7.6	4.6	3.0	9.1	6.1

	Unit				140,	000 <sup>*</sup> B	TUH*			
	Size	Un	insula	ted	3/8-ir	ı. Insul	lation	1/2-ir	ı. Insul	ation
Winter Design Temp	Pipe Dia. mm	64	76	102	64	76	102	64	76	102
°C	-7	1.5	16.7	15.2	1.5	19.8	32.0	1.5	19.8	38.1
	-18	1.5	7.6	4.6	1.5	19.8	15.2	1.5	19.8	18.3
	-29	1.5	3.0	1.5	1.5	13.7	9.1	1.5	15.2	12.2
	-40	1.5	1.5		1.5	9.1	6.1	1.5	35	7.6

<sup>\*.</sup> Not all model families have this size.

# **MAXIMUM EQUIVALENT VENT LENGTH - Ft. (M)**

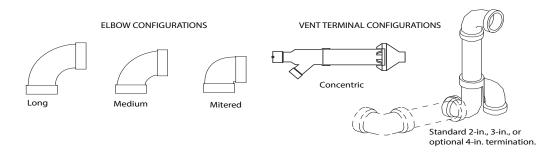
**NOTE:** Maximum Equivalent Vent Length (MEVL) includes standard and concentric vent termination and does NOT include elbows. Use Deductions from Maximum Equivalent Vent Length to determine allowable vent length for each application.

Lin	it Size	26,00	2		40,000	1		60.0	000 <sup>2</sup>				80,000				100	000 <sup>3</sup>		1	20,00	n	- 4	40,000	3
OII		26,00	JU		40,000			00,0	,00				80,000	,			100,	000			20,00	,		40,000	-
	Pipe Dia. (in)	1 ½	2	1 1/2	2	2 ½	1 ½	2	2 ½	3	1 ½	2	2 ½	3	4	2	2 1/2	3	4	2 ½	3	4	2 ½	3	4
	0-2000	70	200	40	155	185	20	100	175	200	15	55	130	175	200	20	80	175	200	10	75	185	5	65	155
	2001-3000	65	190	35	150	175	2	95	165	185		49	125	165	185	15	75	165	185	10	70	175		60	140
	3001-4000	60	175	30	135	160	16	90	155	175		45	115	155	175	10		155	175	5	65	165			120
Altitude	4001-4500	55	160	25	130	155		85	150	170	10	44	110	150	165		70		170	1		160		50	110
(feet)	4501-5000				125	145	15	80	145	165				145	160	10	65	150	165	ļ	60			45	100
(1001)	5001-6000	50	145	20	120	130		75	140	155		41	100	135	150	10		140	155	l .		155	N/A	35	80
	6001-7000	45	135	15	110	120	13	70	130	145		38	90	125	140		60	135	145	N/A	50	140	,, .	30	65
	7001-8000	40	120	10	100	110	10	65	120	135		36		120	125		55	125	135		46	130		25	45
	8001-9000	35	110	.0	90	95	5	60	115	125	N/A	33	80	110	115	N/	50	115	125		43	120		15	30
	9001-10000	30	95	5	80	85	N/ A	55	105	115		30	75	100	105	Α	45	100	115		39	115		10	15
	•							Maxir	num E	quiva	ent V	ent Le	ength	- Mete	rs		-	-	-						
Un	it Size	26,00	0 <sup>2</sup>		40,000	1		60.0	000 <sup>2</sup>				80,000	)			100	000 <sup>3</sup>			20.000			nn 3	
	D: D:							,-					00,000				,			1	20,000	,	140,0	00	
	Pipe Dia. (mm)	38	51	38	51	64	38	51	64	76	38	51	64	76	102	51	64	76	102	64	76	102	140,0 <b>64</b>	76	102
	•	<b>38</b> 21.3	<b>51</b> 60.9	<b>38</b> 12.1	<b>51</b> 47.2	<b>64</b> 56.3				<b>76</b> 60.9	<b>38</b> 4.5				<b>102</b> 60.9	<b>51</b>			<b>102</b> 60.9	64					<b>102</b> 47.2
	(mm) 0-610 611-914	21.3 19.8	60.9 57.9			56.3 53.3	<b>38</b> 6.0	<b>51</b> 30.4 28.9	<b>64</b> 53.3 50.2	60.9 56.3		<b>51</b> 16.7	<b>64</b> 39.6 38.1	<b>76</b> 53.3 50.2	60.9 56.3	6.0	<b>64</b> 24.3	76	60.9 56.3	<b>64</b> 3.0	<b>76</b> 22.8	<b>102</b> 56.3 53.3	64	76	47.2 42.6
	(mm) 0-610	21.3 19.8 18.2	60.9 57.9 53.3	12.1	47.2	56.3		<b>51</b> 30.4	<b>64</b> 53.3	60.9 56.3 53.3	4.5	51	<b>64</b> 39.6	<b>76</b> 53.3 50.2 47.2	60.9		<b>64</b> 24.3 22.8	<b>76</b> 53.3 50.2	60.9 56.3 53.3	64	<b>76</b> 22.8	<b>102</b> 56.3	64	<b>76</b> 19.8 18.2	47.2 42.6 36.5
Altitude	(mm) 0-610 611-914 915-1219 1220-1370	21.3 19.8	60.9 57.9	12.1 10.6 9.1	47.2 45.7 41.1 39.6	56.3 53.3 48.7 47.2	6.0	30.4 28.9 27.4 25.9	53.3 50.2 47.2 45.7	60.9 56.3 53.3 51.8		<b>51</b> 16.7 14.9	39.6 38.1 35.0	76 53.3 50.2 47.2 45.7	60.9 56.3 53.3 50.2	6.0	<b>64</b> 24.3	76 53.3 50.2 47.2	60.9 56.3 53.3 51.8	<b>64</b> 3.0	<b>76</b> 22.8 21.3 19.8	56.3 53.3 50.2	64	76 19.8 18.2 15.2	47.2 42.6 36.5 33.5
Altitude (meters)	(mm) 0-610 611-914 915-1219	21.3 19.8 18.2 16.7	60.9 57.9 53.3 48.7	12.1 10.6	47.2 45.7 41.1	56.3 53.3 48.7 47.2 44.1	6.0	30.4 28.9 27.4 25.9 24.3	53.3 50.2 47.2 45.7 44.1	60.9 56.3 53.3 51.8 50.2	4.5	<b>51</b> 16.7 14.9 13.4	39.6 38.1 35.0 33.5	76 53.3 50.2 47.2 45.7 44.1	60.9 56.3 53.3 50.2 48.7	6.0	64 24.3 22.8 21.3	76 53.3 50.2 47.2 45.7	60.9 56.3 53.3 51.8 50.2	<b>64</b> 3.0	<b>76</b> 22.8 21.3	56.3 53.3 50.2 48.7	64	76 19.8 18.2 15.2 13.7	47.2 42.6 36.5 33.5 30.4
	(mm) 0-610 611-914 915-1219 1220-1370 1371-1524 1525-1829	21.3 19.8 18.2 16.7	60.9 57.9 53.3 48.7	12.1 10.6 9.1 7.6 6.0	47.2 45.7 41.1 39.6 38.1 36.5	56.3 53.3 48.7 47.2 44.1 39.6	6.0 4.8 4.5	30.4 28.9 27.4 25.9 24.3 22.8	53.3 50.2 47.2 45.7 44.1 42.6	60.9 56.3 53.3 51.8 50.2 47.2	4.5	51 16.7 14.9 13.4 12.4	39.6 38.1 35.0	76 53.3 50.2 47.2 45.7 44.1 41.1	60.9 56.3 53.3 50.2 48.7 45.7	6.0	24.3 22.8 21.3 19.8	76 53.3 50.2 47.2 45.7 42.6	60.9 56.3 53.3 51.8 50.2 47.2	<b>64</b> 3.0 1.5	76 22.8 21.3 19.8 18.2	56.3 53.3 50.2 48.7 47.2	64	76 19.8 18.2 15.2 13.7 10.6	47.2 42.6 36.5 33.5 30.4 24.3
	(mm) 0-610 611-914 915-1219 1220-1370 1371-1524 1525-1829 1830-2134	21.3 19.8 18.2 16.7 15.2 13.7	60.9 57.9 53.3 48.7 44.1 41.1	12.1 10.6 9.1 7.6	47.2 45.7 41.1 39.6 38.1 36.5 33.5	56.3 53.3 48.7 47.2 44.1 39.6 36.5	6.0 4.8 4.5	30.4 28.9 27.4 25.9 24.3 22.8 21.3	53.3 50.2 47.2 45.7 44.1 42.6 39.6	60.9 56.3 53.3 51.8 50.2 47.2 44.1	4.5	16.7 14.9 13.4 12.4 11.5	39.6 38.1 35.0 33.5 30.4	53.3 50.2 47.2 45.7 44.1 41.1 38.1	60.9 56.3 53.3 50.2 48.7 45.7 42.6	6.0	24.3 22.8 21.3 19.8 18.2	76 53.3 50.2 47.2 45.7 42.6 41.1	60.9 56.3 53.3 51.8 50.2 47.2 44.1	<b>64</b> 3.0	76 22.8 21.3 19.8 18.2	56.3 53.3 50.2 48.7 47.2 42.6	1.5	76 19.8 18.2 15.2 13.7 10.6 9.1	47.2 42.6 36.5 33.5 30.4 24.3 19.8
	(mm) 0-610 611-914 915-1219 1220-1370 1371-1524 1525-1829 1830-2134 2135-2438	21.3 19.8 18.2 16.7 15.2 13.7 12.1	60.9 57.9 53.3 48.7 44.1 41.1 36.5	12.1 10.6 9.1 7.6 6.0 4.5	47.2 45.7 41.1 39.6 38.1 36.5 33.5 30.4	56.3 53.3 48.7 47.2 44.1 39.6 36.5 33.5	6.0 4.8 4.5 3.9 3.0	30.4 28.9 27.4 25.9 24.3 22.8 21.3 19.8	53.3 50.2 47.2 45.7 44.1 42.6 39.6 36.5	60.9 56.3 53.3 51.8 50.2 47.2 44.1 41.1	3.0	16.7 14.9 13.4 12.4 11.5 10.9	39.6 38.1 35.0 33.5 30.4 27.4	76 53.3 50.2 47.2 45.7 44.1 41.1 38.1 36.5	60.9 56.3 53.3 50.2 48.7 45.7 42.6 38.1	6.0 4.5 3.0	24.3 22.8 21.3 19.8 18.2 16.7	76 53.3 50.2 47.2 45.7 42.6 41.1 38.1	60.9 56.3 53.3 51.8 50.2 47.2 44.1 41.1	<b>64</b> 3.0 1.5	76 22.8 21.3 19.8 18.2 15.2 14.0	56.3 53.3 50.2 48.7 47.2 42.6 39.6	1.5	76 19.8 18.2 15.2 13.7 10.6 9.1 7.6	47.2 42.6 36.5 33.5 30.4 24.3 19.8 13.7
	(mm) 0-610 611-914 915-1219 1220-1370 1371-1524 1525-1829 1830-2134	21.3 19.8 18.2 16.7 15.2 13.7	60.9 57.9 53.3 48.7 44.1 41.1	12.1 10.6 9.1 7.6 6.0	47.2 45.7 41.1 39.6 38.1 36.5 33.5	56.3 53.3 48.7 47.2 44.1 39.6 36.5	6.0 4.8 4.5	30.4 28.9 27.4 25.9 24.3 22.8 21.3	53.3 50.2 47.2 45.7 44.1 42.6 39.6	60.9 56.3 53.3 51.8 50.2 47.2 44.1	4.5	16.7 14.9 13.4 12.4 11.5	39.6 38.1 35.0 33.5 30.4	53.3 50.2 47.2 45.7 44.1 41.1 38.1	60.9 56.3 53.3 50.2 48.7 45.7 42.6	6.0	24.3 22.8 21.3 19.8 18.2	76 53.3 50.2 47.2 45.7 42.6 41.1	60.9 56.3 53.3 51.8 50.2 47.2 44.1	<b>64</b> 3.0 1.5	76 22.8 21.3 19.8 18.2	56.3 53.3 50.2 48.7 47.2 42.6	1.5	76 19.8 18.2 15.2 13.7 10.6 9.1	47.2 42.6 36.5 33.5 30.4 24.3 19.8

<sup>1. 40</sup>K Inducer Outlet Restrictor disk (P/N 337683-401; 1.25-in. (32 mm) Dia.) shipped in the loose parts bag or available through Replacement Components required under 10-ft. (3 M) TEVL in all orientations. Required for installations from 0 - 2000 ft. (0 to 610 M) above sea level. Failure to use an outlet restrictor may result in flame disturbances or flame sense lock-out

<sup>2. 26</sup>K (shipped in loose parts bag) & 60K Inducer Outlet Restrictor disk (P/N 337683-401; 1.25-in. (32 mm) Dia. available through Replacement Components) required for less than 5-ft. (1.5 M) TEVL in downflow and horizontal orientations only. Required for installations from 0 - 2000 ft. (0 to 610 M) above sea level.

<sup>3. 120</sup>K & 140K Inducer Outlet Restrictor disk (P/N 337683-402; 1.50-in. (38 mm) Dia. available through Replacement Components) required for less than 5-ft. (1.5 M) TEVL in downflow and horizontal orientations only. Required for installations from 0 - 2000 ft. (0 to 610 M) above sea level.



A13110

# **Deductions from Maximum Equivalent Vent Length - Ft. (M)**

Pipe Diameter (in):	1-	1/2		2	2-	1/2		3		4
Mitered 90° Elbow	8	(2.4)	8	(2.4)	8	(2.4)	8	(2.4)	8	(2.4)
Medium Radius 90° Elbow	5	(1.5)	5	(1.5)	5	(1.5)	5	(1.5)	5	(1.5)
Long Radius 90° Elbow	3	(0.9)	3	(0.9)	3	(0.9)	3	(0.9)	3	(0.9)
Mitered 45° Elbow	4	(1.2)	4	(1.2)	4	(1.2)	4	(1.2)	4	(1.2)
Medium Radius 45° Elbow	2.5	(0.8)	2.5	(8.0)	2.5	(0.8)	2.5	(8.0)	2.5	(8.0)
Long Radius 45° Elbow	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)
Tee	16	(4.9)	16	(4.9)	16	(4.9)	16	(4.9)	16	(4.9)
Concentric Vent Termination	١	IA.	0	(0.0)	١	NA.	0	(0.0)	١	NΑ
Standard Vent Termination	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)

#### NOTE:

- 1.Use only the smallest diameter pipe possible for venting. Over-sizing may cause flame disturbance or excessive vent terminal icing or freeze-up.
- 2. NA Not allowed. Pressure switch will not close, or flame disturbance may result.
- 3. Vent sizing for Canadian installations over 4500 ft (1370 M) above sea level are subject to acceptance by local authorities having jurisdiction.
- 4. Size both the combustion air and vent pipe independently, then use the larger size for both pipes.
- 5. Assume the two  $45^{\circ}$  elbows equal one  $90^{\circ}$  elbow. Wide radius elbows are desirable and may be required in some cases.
- 6. Elbow and pipe sections within the furnace casing and at the vent termination should not be included in vent length or elbow count.
- 7. The minimum pipe length is 5 ft. (2 M) linear feet (meters) for all applications.
- 8. Use 3-in. (76 mm) diameter vent termination kit for installations requiring 4-in. (102 mm) diameter pipe

# **Venting System Length Calculations**

The Total Equivalent Vent Length (TEVL) for **EACH** combustion air or vent pipe equals the length of the venting system, plus the equivalent length of elbows used in the venting system from Deductions from Maximum Equivalent Vent Length - Ft. (M) Table.

Standard vent terminations or factory accessory concentric vent terminations count for zero deduction.

See vent system manufacturer's data for equivalent lengths of flexible vent pipe or other termination systems. **DO NOT ASSUME** that one foot of flexible vent pipe equals one foot of straight PVC/ABS DWV vent pipe.

Compare the Total Equivalent Vent Length to the Maximum Equivalent Vent Lengths in Maximum Equivalent Vent Length Table.

#### Example 1

A direct-vent 60,000 BTUH furnace installed at 2100 ft. (640M). Venting system includes FOR EACH PIPE:

70 feet (22 M) of vent pipe, 65 feet (20 M) of combustion air inlet pipe, (3) 90° long-radius elbows, (2) 45° long-radius elbows, and a factory accessory concentric vent kit.

Can this application use 2" (50 mm ND) PVC/ABS DWV vent piping?

Measure the required linear length of air inlet and vent pipe; insert the longest of the two here					70 ft. (22 M)	Use length of the longer of the vent or air inlet piping system
Add equiv length of (3) 90° long-radius elbows (use the highest number of elbows for either the vent or inlet pipe)	3	х	3 ft. (0.9 M)	=	9 ft. (2.7 M)	From Deductions from Maximum Equivalent Vent Length - Ft. (M) Table.
Add equiv length of (2) 45° long-radius elbows (use the highest number of elbows for either the vent or inlet pipe)	2	х	1.5 ft. (0.5 M)	=	3 ft. (0.9 M)	From Deductions from Maximum Equivalent Vent Length - Ft. (M) Table.
Add equiv length of factory concentric vent term					0 ft.	From Deductions from Maximum Equivalent Vent Length - Ft. (M) Table.
Add correction for flexible vent pipe, if any					0 ft.	From Vent Manufacturer's instructions; zero for PVC/ABS DWV
Total Equivalent Vent Length (TEVL)					82 ft. (25 M)	Add all of the above lines
			T			
Maximum Equivalent Vent Length (MEVL)					95 ft. (29 M)	For 2" pipe from Maximum Equivalent Vent Length Table.
Is TEVL less than MEVL?					YES	Therefore, 2" pipe MAY be used

## **Example 2**

A direct-vent 60,000 BTUH furnace installed at 2100 ft. (640M). Venting system includes FOR EACH PIPE:

100 feet (30 M) of vent pipe, 95 feet (29 M) of combustion air inlet pipe, (3) 90° long-radius elbows, and a polypropylene concentric vent kit. Also includes 20 feet (6.1 M) of flexible polypropylene vent pipe, included within the 100 feet (30 M) of vent pipe.

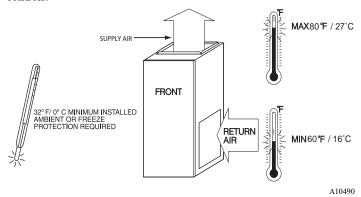
VERIFY FROM POLYPROPYLENE VENT MANUFACTURER'S INSTRUCTIONS for the multiplier correction for flexible vent pipe.

Can this application use 60mm o.d. (2") polypropylene vent piping? If not, what size piping can be used?

11 ( )1 11 15	11 0	,	1 1	0		
Measure the required linear length of RIGID air inlet and v	ent pipe; in	ngest of	_	80 ft.	Use length of the longer of the vent	
the two here: 100 ft. Of rigid pipe - 20 ft. Of flexible pipe				-	(24 M)	or air inlet piping system
Add equiv length of (3) 90° long-radius elbows (use the	3	х	5 ft.	_	15 ft.	
highest number of elbows for either the vent or inlet pipe)	3	^	(1.5 M)		(4.6 M)	
Add equiv length of 45° long-radius elbows					0 ft.	
(use the highest number of elbows for either the vent or	0	Х		=	(0 M)	Example from polypropylene vent
inlet pipe)					(0 101)	manufacturer's instructions, Verify from vent
Add equiv length of factory concentric vent term	9	x	3.3 ft	_	30 ft.	manufacturer's instructions.
Add equiviengly of factory concentric veril term	3	^	(0.9 M)	-	(9 M)	
Add correction for flexible vent pipe, if any	2*	х	20 ft.	_	40 ft.	
Add correction for flexible verit pipe, if any		X	(6.1 M)	_	(12.2 M)	
* VERIFY FROM VENT MANUFACTURER'S INSTRUCTION	DNS; For ex	xample onl	y, assume	1 m	eter of flex	ible 60mm (2") or 80mm (3") polypropylene
pipe equals 2.0 meters (6.5 ft.) of PVC/ABS pipe.						
Total Equivalent Vent Length (TEVL)					165 ft.	Add all of the above lines
lotal Equivalent vent Length (1 E v L)					(50 M)	Add all of the above lines
Maximum Equivalent Vent Length (MEVL)					95 ft.	For 2" pipe from Maximum Equivalent Vent
Waxiiiuiii Equivaletit vetit Eerigtii (WEVE)					(29 M)	Length Table.
Is TEVL less than MEVL?					NO	Therefore, 60mm (2") pipe may NOT be
IS TEVE less than MEVE?					INO	used; try 80mm (3")
Maximum Equivalent Vent Length (MEVI)					185 ft.	For 3" pipe from Maximum Equivalent Vent
Maximum Equivalent Vent Length (MEVL)					(57 M)	Length Table.
Is TEVL less than MEVL?					YES	Therefore, 80mm (3") pipe MAY be used

## RETURN AIR TEMPERATURE

This furnace is designed for continuous return-air minimum temperature of 60°F (15°C) db or intermittent operation down to 55°F (13°C) db such as when used with a night setback thermometer. Return-air temperature must not exceed 80°F (27°C) db. Failure to follow these return air limits may affect reliability of heat exchangers, motors and controls.

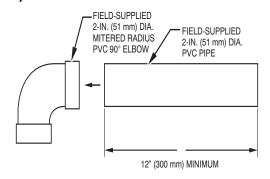


# MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

POSITION	CLEARANCE		
Rear	0 (0 mm)		
Front (Combustion air openings in furnace and in structure)	1 in. (25 mm)		
Required for service*	24 in. (610 mm) <sup>†</sup>		
All Sides of Supply Plenum*	1 in. (25 mm)		
Sides	0 (0 mm)		
Vent	0 (0 mm)		
Top of Furnace	1 in. (25 mm)		

- \*. Consult your local building codes
- †. Recommended

# COMBUSTION-AIR PIPE FOR NON-DIRECT (1-PIPE) VENT APPLICATION



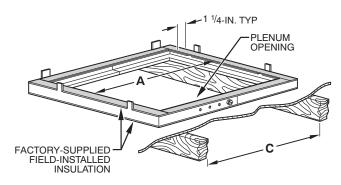
A12376

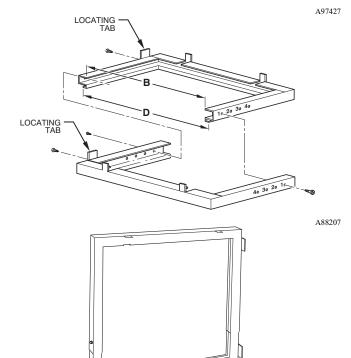
NOTE: See Installation Instructions for specific venting configurations.

DIMENSIONS (IN. / MM)							
FURNACE CASING WIDTH		PLENUM OPENING*		FLOOR C	HOLE NO. FOR		
	FURNACE IN DOWNFLOW APPLICATION	Α	В	С	D	WIDTH ADJUSTMENT	
14-3/16 (360)	Furnace with or without Cased Coil Assembly or Coil Box	11-3/16 (322)	19 (483)	13-7/16 (341)	20-5/8 (600)	4	
17-1/2 (445)	Furnace with or without Cased Coil Assembly or Coil Box	15-1/8 (384)	19 (483)	16-3/4 (426)	20-5/8 (600)	3	
21 (533)	Furnace with or without Cased Coil Assembly or Coil Box	18-5/8 (396)	19 (483)	20-1/4 (514)	20-5/8 (600)	2	
24-1/2 (622)	Furnace with or without Cased Coil Assembly or Coil Box	22-1/8 (562)	19 (483)	23-3/4 (603)	20-5/8 (600)	1	

<sup>\*.</sup> The plenum should be constructed 1/4-in. (6 mm) smaller in width and depth than the plenum dimensions shown above.

## **DOWNFLOW SUBBASE**





Downflow Subbase
A8820

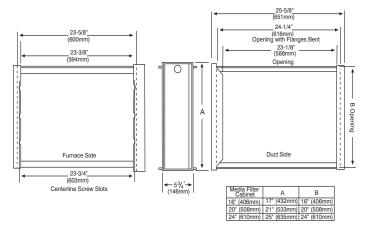
One base fits all furnace sizes. The base is designed to be installed between the furnace and a combustible floor when no coil box is used or when a coil box other than a Bryant cased coil is used. It is CSA design certified for use with Bryant branded furnaces when installed in downflow applications.



A93086

A concentric vent kit allows vent and combustion-air pipes to terminate through a single exit in a roof or side wall. One pipe runs inside the other allowing venting through the inner pipe and combustion air to be drawn in through the outer pipe.

# MEDIA FILTER CABINET (OPTIONAL ACCESSORY)

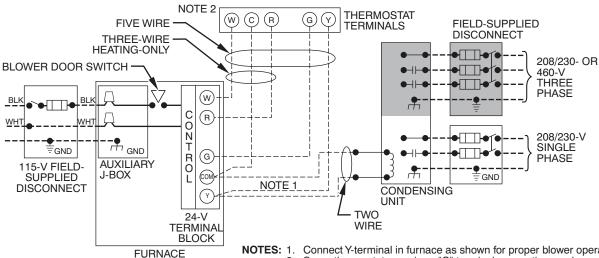


NOTE: Media cabinet is matched to the bottom opening on furnace. May also be used for side return

A12428

# TYPICAL WIRING SCHEMATIC





- Connect Y-terminal in furnace as shown for proper blower operation.
- Some thermostats require a "C" terminal connection as shown. If any of the original wire, as supplied, must be replaced, use
- same type or equivalent wire.

A190079

## **GUIDE SPECIFICATIONS**

## General

# **System Description**

Furnish a \_\_\_\_\_\_ 4-way multipoise gas-fired condensing furnace for use with natural gas or propane (factory-authorized conversion kit required for propane).

## **Quality Assurance**

Unit will be designed, tested and constructed to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces.

Unit will be third party certified by CSA to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces. Unit will carry the CSA Blue Star® and Blue Flame® labels. Unit efficiency testing will be performed per the current DOE test procedure as listed in the Federal Register.

Unit will be certified for capacity and efficiency and listed in the latest AHRI Consumer's Directory of Certified Efficiency Ratings.

Unit will carry the current Federal Trade Commission Energy Guide efficiency label.

## Delivery, Storage, and Handling

Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

## Warranty (for inclusion by specifying engineer)

U.S. and Canada only. Warranty certificate available upon request.

# Equipment

#### **Blower Wheel and ECM Blower Motor**

Galvanized blower wheel shall be centrifugal type, statically and dynamically balanced. Blower motor of ECM type shall be permanently lubricated with sealed ball bearings, of \_\_\_\_\_hp, and have multiple speeds from 600-1200 RPM operating only when 24-VAC motor inputs are provided. Blower motor shall be direct drive and soft mounted to the blower housing to reduce vibration transmission.

## **Filters**

Furnace shall	l have reusa	ble-type filters	. Filter	shall be _		in. (mı	m)
X	in. (mm).	An accessory	highly	efficient	Media	Filter	is
available as a	ın option		Media	Filter.			

## Casing

Casing shall be of .030 in. thickness minimum, pre-painted steel.

# **Draft Inducer Motor**

Draft inducer motor shall be single-speed PSC design.

## **Primary Heat Exchangers**

Primary heat exchangers shall be 3-Pass corrosion-resistant aluminized steel of fold-and-crimp sectional design and applied operating under negative pressure.

## **Secondary Heat Exchangers**

Secondary heat exchangers shall be of a stainless steel flow-through of fin-and-tube design and applied operating under negative pressure.

# **Controls**

Controls shall include a micro-processor-based integrated electronic control board with at least 16 service troubleshooting codes displayed via diagnostic flashing LED light on the control, a self-test feature that checks all major functions of the furnace, and a replaceable automotive-type circuit protection fuse. Multiple operational settings available, including blower speeds for heating and cooling.

## **Operating Characteristics**

Heating	capacity	shall	be		Btuh	input
	Bt	uh outp	ut cap	acity.		
Fuel Gas	Efficiency	shall be	:	AFUE.		

external static	pressure.	`	efm minimum a	0.50 m. w
(mm); height	i	n. (mm) (	(mm); width casing only).	Height sh
overall with pl		A/C coil and		ın. (m
	Requiremen	<u>ts</u>		
Minimum wir	e size shall be	eA	Hz, single-ph WG; maximui ll be	n fuse size
Special Fea				
			identifying acable enhanceme	

915SB: Product Data

A Carrier Company

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