

Model G24-200

80% A.F.U.E.

200,000 Btuh Input Heating Cap.

7.5 or 10 Tons Nominal Add-On Cooling



FEATURES

- ◆ Certified by A.G.A./C.G.A. Laboratories.
- ◆ Heavy gauge painted cold rolled steel cabinet with foil faced fiberglass insulation on side and back panels of heat section
- ◆ Service access accomplished by removing front top access panels and front bottom blower access doors, safety interlock switches located on blower access doors automatically shut off power when either door is removed
- ◆ Gas piping inlets and low voltage electrical knockouts provided on both sides of cabinet
- ◆ Units shipped for bottom return air. Optional field convertible rear return air
- ◆ Dual tubular aluminized steel heat exchangers for superior resistance to corrosion and oxidation
- ◆ Aluminized steel inshot burners provide efficient trouble free operation
- ◆ Dual manual reset switches are furnished as standard and are factory installed on side of each burner box
- ◆ Control box is located behind left side blower access panel and includes all necessary relays and controls to operate the furnace. Control transformer furnished with drive kit
- ◆ Two field wiring make-up boxes are furnished for line voltage wiring - boxes may be installed on either side of furnace and contain all necessary hardware for installation
- ◆ Dual limit controls provide protection from abnormal operating conditions
- ◆ Blower contactor furnished as standard
- ◆ Dual belt drive blowers mounted on resilient rubber mounts assuring quiet and vibration free operation
- ◆ Adjustable motor pulley allows various speed selection. Motor and drive kit must be ordered separately
- ◆ Fan control consists of fixed timed-on delay (30 to 40 seconds) and fixed timed-off delay (100 to 120 seconds)
- ◆ Shaded pole heavy duty induced draft blowers pre-purge heat exchanger and safely vent flue products
- ◆ 2-stage 24 volt redundant combination gas control valve combines a manual main shutoff valve, pressure regulation and automatic electric valve (dual) into one compact combination control
- ◆ Solid state electronic direct spark ignition control provides positive and safe main burner ignition
- ◆ Aluminized steel heat exchanger has a limited warranty for 10 years
- ◆ All other covered components - limited warranty for one year

Specifications

Model No.	G24-200
Input Btuh (kW)	200,000 (58.6)
Output Btuh (kW)	160,000 (46.9)
A.G.A./C.G.A. Thermal Efficiency	80%
Flue size connection diameter (number) - in. (mm) round	(2) 4 (102)
Temperature rise range - oF (oC)	25 - 55 (14 - 31)
High static certified by A.G.A./C.G.A. - in. wg. (Pa)	.90 (224)
Gas Piping Size n.p.t. - Natural (LPG/Propane)	3/4 (1/2)
Blower wheel nominal diameter x width - in. (mm)	(2) 12 x 12 (305 x 305)
Blower pulley bore x diameter - in. (mm)	1 x 10 (25 x 254)
See Drive Kit Selection Table for blower motor, drive and electrical information - Must order separately	*
Nominal cooling that can be added - Tons (kW)	7.5 or 10 (26.4 or 35.2)
Shipping weight - lbs. (kg)	460 (209)
Number of packages in shipment	2 (assembled unit - drive kit)

*NOTE: Transformers will match line voltage to 24 volt control transformer which is furnished with Drive Kit. Matching transformer for combustion air blowers is furnished with Drive Kit (all except 208/230 volt).

Optional Accessories

Model No.	G24-200	
LPG/Propane Conversion Kit (2 required)	41L94	
Filter Box	Catalog No.	15L02
	No. & size of filter - in. (mm)	(4) 16 x 25 x 1 (406 x 635 x 25) disposable filter
	Shipping weight - lbs (kg)	49 (22)

Blower Data

Air Volume cfm (L/s)	Total Static Pressure - in. w.g. (Pa)																					
	.10 (25)		.20 (50)		.30 (75)		.40 (100)		.50 (125)		.60 (150)		.70 (175)		.80 (200)		.90 (225)		1.00 (250)		1.10 (275)	
	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)	RPM	BHP (kW)
2400 (1135)	--	--	--	--	535	.30 (.22)	600	.35 (.26)	665	.45 (.34)	720	.55 (.41)	755	.65 (.48)	825	.75 (.56)	875	.85 (.63)	920	.95 (.71)	965	1.05 (.78)
2600 (1225)	--	--	--	--	545	.35 (.26)	610	.40 (.30)	670	.50 (.37)	725	.60 (.45)	780	.70 (.52)	830	.80 (.60)	875	.90 (.67)	920	1.00 (.75)	965	1.10 (.82)
2800 (1320)	--	--	--	--	560	.40 (.30)	620	.45 (.34)	680	.55 (.41)	735	1.05 (.48)	785	.75 (.56)	835	.85 (.63)	880	.95 (.71)	925	1.05 (.78)	965	1.15 (.86)
3000 (1415)	--	--	--	--	570	.45 (.34)	630	.55 (.41)	690	.60 (.45)	740	.70 (.52)	790	.90 (.06)	840	.90 (.67)	865	1.00 (.75)	930	1.15 (.86)	970	1.25 (.93)
3200 (1510)	--	--	--	--	585	.50 (.37)	640	.85 (.45)	685	.70 (.52)	750	.80 (.60)	800	.90 (.67)	845	1.00 (.75)	890	1.10 (.82)	935	1.20 (.90)	975	1.35 (1.34)
3400 (1605)	--	--	535	.50 (.37)	595	.55 (.41)	655	.65 (.48)	710	.75 (.56)	760	.85 (.63)	805	.95 (.71)	855	1.05 (.78)	895	1.20 (.90)	940	1.30 (.97)	--	--
3600 (1700)	--	--	550	.55 (.41)	610	.65 (.48)	665	.75 (.56)	720	.85 (.63)	770	.95 (.71)	815	1.05 (.78)	860	1.15 (.86)	905	1.25 (.93)	945	1.40 (1.04)	--	--
3800 (1795)	--	--	570	.60 (.45)	625	.70 (.52)	680	.80 (.60)	730	.90 (.67)	780	1.05 (.78)	825	1.15 (.86)	870	1.25 (.93)	910	1.35 (1.01)	955	1.50 (1.12)	--	--
4000 (1890)	--	--	585	.70 (.52)	645	.80 (.60)	695	.90 (.67)	745	1.00 (.75)	790	1.10 (.82)	835	1.25 (.93)	880	1.35 (1.01)	920	1.45 (1.08)	960	1.60 (1.19)	--	--
4200 (1980)	550	.70 (.52)	605	.80 (.60)	660	.90 (.67)	710	1.00 (.75)	760	1.10 (.82)	805	1.25 (.93)	850	1.35 (1.01)	890	1.45 (1.08)	930	1.60 (1.19)	970	1.70 (1.27)	--	--
4400 (2075)	570	.80 (.60)	625	.90 (.67)	675	1.00 (.75)	725	1.10 (.82)	770	1.20 (.90)	815	1.35 (1.01)	860	1.45 (1.08)	900	1.60 (1.19)	940	1.70 (1.27)	--	--	--	--
4600 (2170)	590	.90 (.67)	645	1.00 (.75)	695	1.10 (.82)	740	1.25 (.93)	785	1.35 (1.01)	830	1.45 (1.08)	870	1.60 (1.19)	915	1.75 (1.31)	950	1.85 (1.38)	--	--	--	--
4800 (2265)	610	1.00 (.75)	660	1.10 (.82)	710	1.25 (.93)	755	1.35 (1.01)	800	1.45 (1.08)	845	1.60 (1.19)	885	1.75 (1.31)	925	1.85 (1.38)	965	2.00 (1.49)	--	--	--	--
5000 (2360)	630	1.10 (.82)	680	1.25 (.93)	730	1.35 (1.01)	775	1.50 (1.12)	815	1.60 (1.19)	860	1.75 (1.31)	900	1.90 (1.42)	940	2.00 (1.49)	975	2.15 (1.60)	--	--	--	--

NOTE - All air data is measured external to furnace using rear return air opening without air filters in place.

Bold text indicates 2 H.P. (1.5 kW) drive kits.

Drive Kit Specifications

Additive Cooling Tons (kW)	Drive Kit Model No.	Voltage & Phase	Motor Output hp (kW)		² Minimum Circuit Ampacity	Motor Pulley (in.) & Groove	Blower Pulley (in.) & Groove	RPM Range	Belt	Shipping Weight lbs. (kg)
			min.	¹ max.						
7.5 or 10 (26.4 or 35.2)	DKG24-200-1 (13L67)	115v-1ph	1.5 (1.1)	1.7 (1.3)	25	7/8 x 4 3/4 - A	1 x 10 - A	535 - 772	A - 52	42 (19)
	DKG24-200-2 (13L68)	230v-1ph			14					42 (19)
	DKG24S-200-3 (13L69)	208/230v-3ph			9					48 (22)
	DKG24S-200-4 (13L70)	460v-3ph			4					48 (22)
	DKG24S-200-5 (13L71)	575v-3ph			3					48 (22)
10 (35.2)	DKG24-200-6 (13L72)	208/230v-3ph	2 (1.5)	2.3 (1.7)	9	7/8 x 6 - A	1 x 10 - A	802 - 977	A - 52	57 (26)
	DKG24-200-7 (13L73)	460v-3ph			4					57 (26)
	DKG24-200-8 (13L74)	575v-3ph			3					57 (26)

¹Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output are used, keep within the service factor limitations specified on motor nameplate.

²At rated voltages shown.

NOTE - All drive kits include matching 24 volt control transformer. All kits (except 208/230v) include matching auto-transformer for combustion air blower operation.

Accessory Air Resistance

Model		C17-090/120 Coil		Pleated Filter - 1 inl (25 mm)		*Disposable Filter - 1 in. (25 mm)	
cfm	L/s	in. w.g.	Pa	in. w.g.	Pa	in. w.g.	Pa
2400	1135	.14	35	.17	42	.05	12
2600	1225	.16	40	.18	45	.06	15
2800	1320	.19	47	.20	50	.07	17
3000	1415	.22	55	.22	55	.08	20
3200	1510	.24	60	.23	57	.09	22
3400	1605	.27	67	.25	62	.10	25
3600	1700	.30	75	.27	67	.10	25
3800	1795	.33	82	.29	72	.11	27
4000	1890	.36	90	.31	77	.12	30
4200	1980	.38	95	.34	85	.13	32
4400	2075	.42	104	.36	90	.14	35
4600	2170	.45	112	.39	97	.16	40
4800	2265	.48	119	.42	104	.17	42
5000	2360	.51	127	.44	109	.18	45

*Furnished with filter box.

Guide Specifications

Prepared for the guidance of architects, consulting engineers and mechanical contractors.

General

Furnish and install gas-fired up-flow furnace.

The unit shall be a standard product of a firm regularly engaged in the manufacture of heating-cooling equipment. The manufacturer shall have parts and service available throughout the U.S. and Canada

The equipment shall be shipped assembled ready for necessary field connections. Blower motor and pulley shall be shipped separate and field installed.

Heating System

Dual tubular heat exchangers and inshot type gas burners shall be constructed of aluminized steel. Controls shall consist of direct spark ignition, electronic flame sensor controls, flame rollout switches, limit controls, automatic redundant gas valves and blower prove switches on induced draft blowers. Unit shall be available for use with LPG/propane as an option. Complete service access shall be provided for controls and wiring. Shall be A.G.A. and C.G.A. design certified.

Cabinet

Shall be galvanized steel with a powdered enamel paint finish electrostatically bonded to the metal. Panels shall be insulated with not less than one inch (25 mm) thick fiberglass insulation. Openings shall be provided for power entry in bottom and sides of unit. Cabinet shall be equipped with large removable panels providing service access to interior.

Service Access

All components, wiring and inspection areas shall be completely accessible through removable panels.

Air Movers

Centrifugal conditioned air blowers shall have statically and dynamically balanced, forwardly curved, double inlet blower wheels, permanently lubricated bearings and adjustable belt drives.

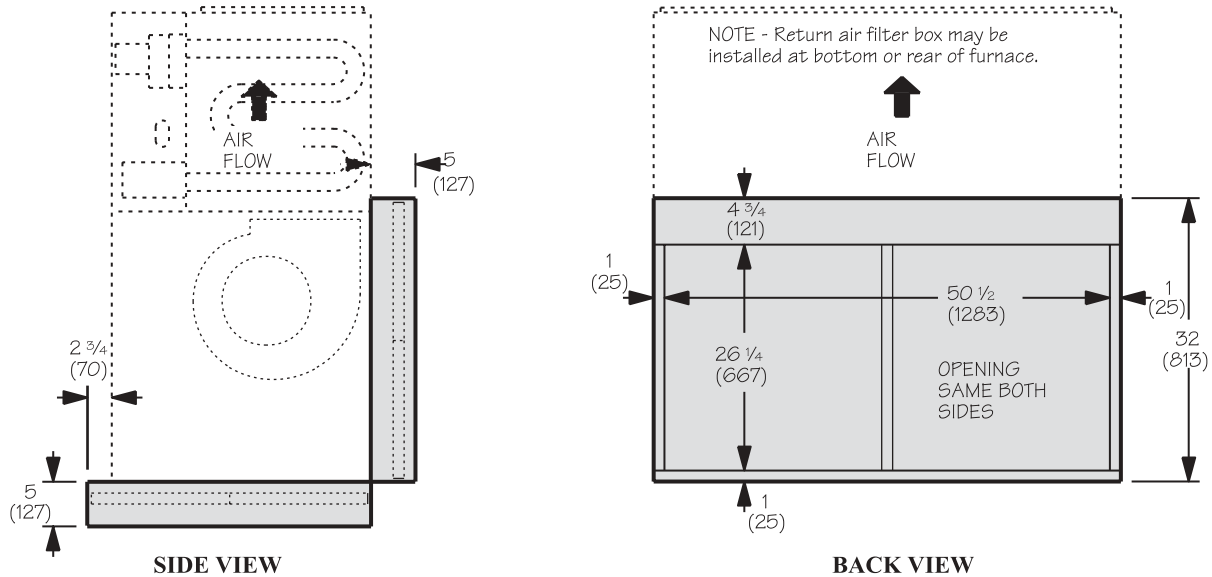
Optional Accessories

Filter Box

Filter box shall be available for field installation on bottom or rear of furnaces. Filter access panel shall be provided on side and front of box. One inch (25 mm) thick disposable filters shall be furnished.

Accessory Dimensions - inches (mm)

Filter Box



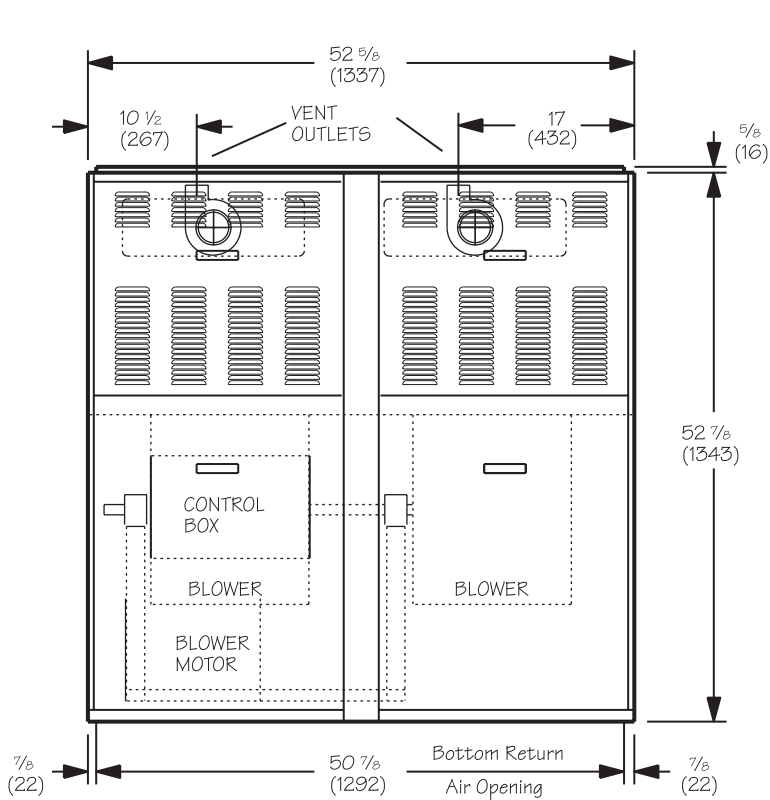
Installation Clearances - inches (mm)

Sides	0 (0)
Rear	0 (0)
Top	1 (25)
Front	3 (76)
Floor	Combustible
Service Clearance (front)	36 (914)

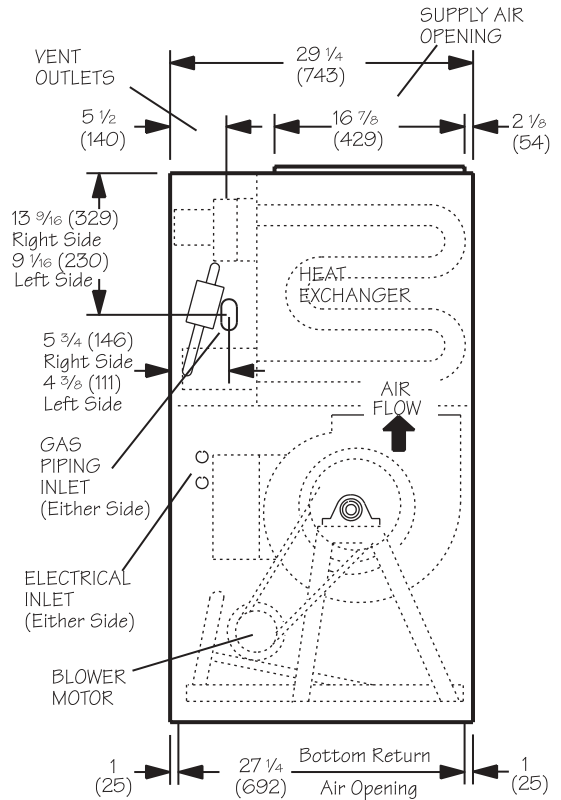
NOTE - Air for combustion and supply air ventilation must conform to the methods outlined in American National Standard (ANSI-Z223.1), National Fuel Gas Code or National Standard of Canada CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

NOTE - In the U.S. flue sizing must conform to the methods outline in current GAMA/A.G.A. venting tables, American National Standard (ANSI-Z223.1) National Fuel Gas Code or applicable provisions of local building codes. In Canada flue sizing must conform to the methods outlined in National Standard of Canada CAN/CGA-149.1 and CAN/CGA 149.2.

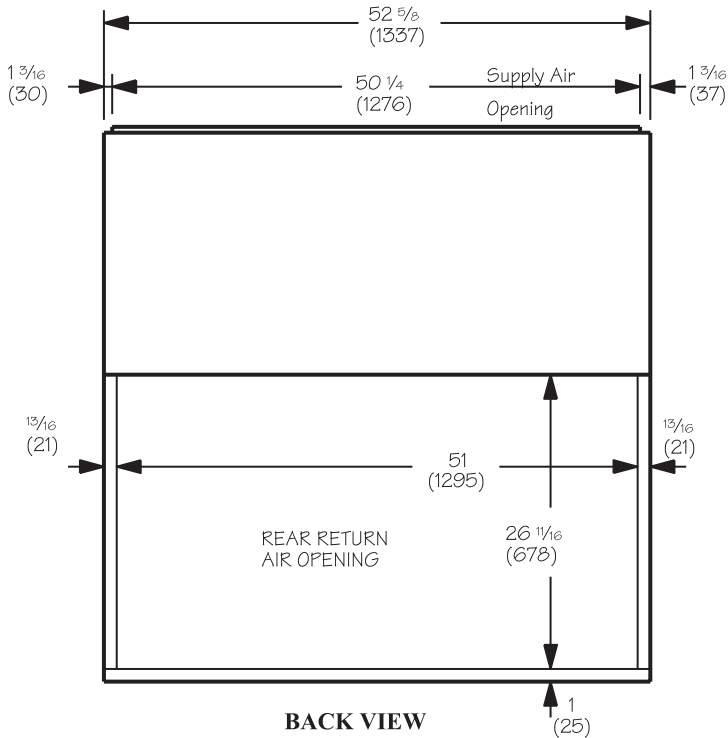
Dimensions - inches (mm)



FRONT VIEW



SIDE VIEW



BACK VIEW

All specifications are subject to change
without notice.



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