

LENNOX

ENGINEERING DATA

GAS FURNACES

G40UH

MERIT 80™ SERIES
Up-Flow/Horizontal

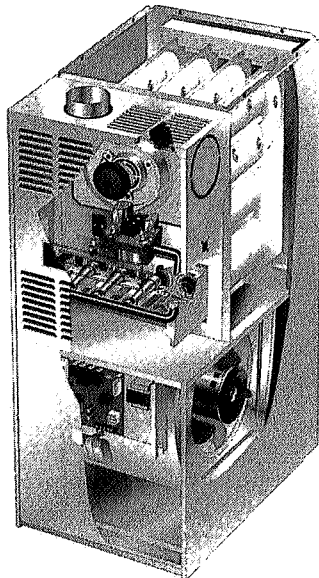
AFUE - 80.0%

Input - 44,000 to 154,000 Btuh (12.9 to 38.7 kW)
Add-on Cooling - 1 to 5 Tons (3.5 to 17.6 kW)

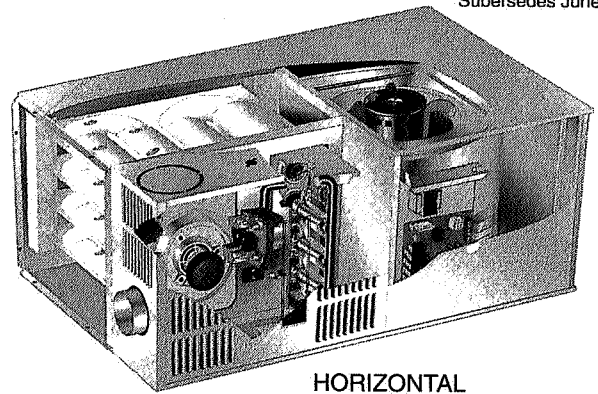
Bulletin No. 210278

October 2000

Supersedes June 2000

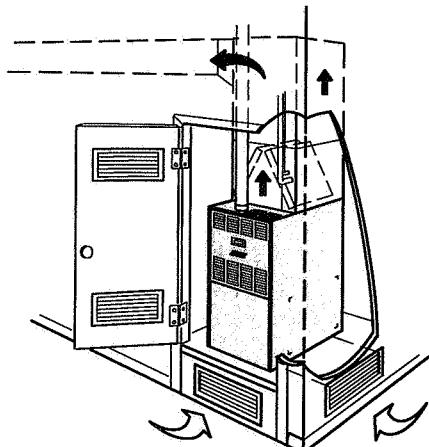


UP-FLOW
POSITION

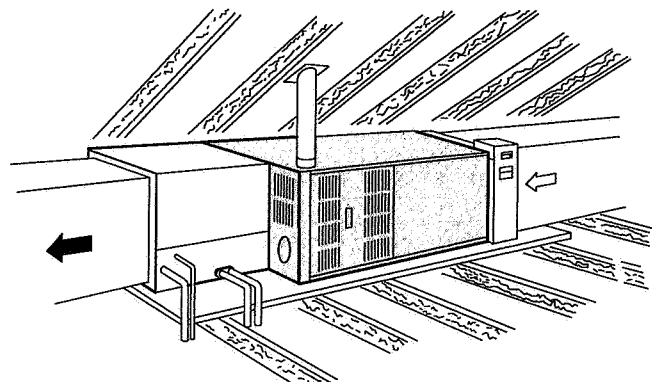


HORIZONTAL
POSITION

Typical Applications



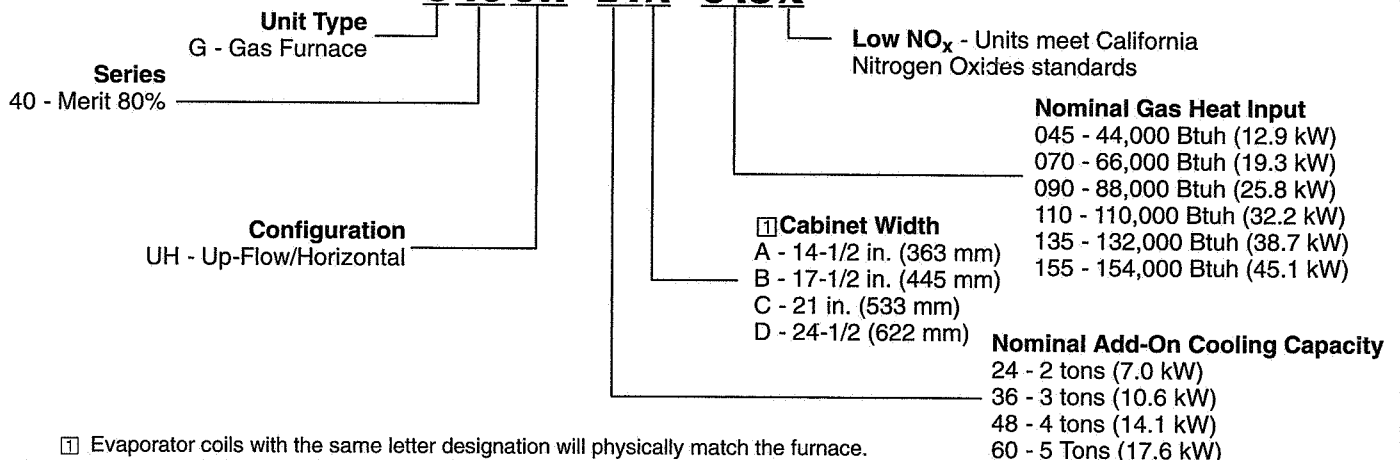
Closest Installation
With cooling coil



Attic Installation
With cooling coil and electronic air cleaner

MODEL NUMBER IDENTIFICATION

G 40 UH - 24 A - 045 X



□ Evaporator coils with the same letter designation will physically match the furnace.

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

FEATURES

Applications

- Six models (natural gas or LPG/propane).
- Input capacities of 44,000, 66,000, 88,000, 110,000, 132,000 and 154,000 Btuh (12.9, 19.3, 25.8, 32.2, 38.7 and 45.1 kW).
- Energy efficiency (AFUE) of 80.0%.
- Utility room, alcove, closet, crawl space or attic installation.
- Lennox add-on evaporator coils, electronic air cleaners and power humidifiers can easily be added to furnace.
- Shipped factory assembled with all controls installed and wired.
- Ready for installation in up-flow or horizontal left or right hand position without any modifications. Removeable bottom seal panel shipped in place for side return air is easily removed for bottom/end return air applications.
- Each unit factory test operated to insure proper operation.

Approvals

- Units certified by CSA International (formerly AGA/CGA) and ratings are certified by GAMA.
- Units tested and rated according to US DOE test procedures and FTC labeling regulations.
- Approved by California Energy Commission and meet California Seasonal Efficiency requirements and California Nitrogen Oxides (NO_x) Standards.
- "X" models meet California Nitrogen Oxides (NO_x) Standards.
- Blower data from unit tests conducted in Lennox Laboratory air test chamber.
- Developed in accordance with ISO 9000 quality standards.

Equipment Warranty

- "Duralok™" Aluminized Steel Heat Exchangers — twenty year limited warranty.
- SureLight ignition control system - three year limited warranty (residential applications) - one year (non-residential applications).
- All other covered components — one year limited warranty.
- Refer to Lennox Equipment Limited Warranty certificate included with equipment for details.

Lennox Duralok™ Aluminized Steel Heat Exchanger

- Heavy gauge aluminized steel heat exchanger.
- Crimped seam clamshell type design.
- Designed for normal expansion and contraction without metal fatigue.
- Minimum resistance to air flow.
- Heat exchanger has been laboratory life cycle tested.

Inshot Burners

- Aluminized steel-inshot burners.
- Burner venturi mixes air and gas in correct proportion for proper combustion.
- Burner box assembly is removeable from the unit as a single component for servicing.

SureLight™ Hot Surface Ignition

- Tough, reliable, long-life, trouble-free performance.
- Tungsten heater element sandwiched between two plates of silicon nitride.
- Cemented to seatite block for protection against current leakage.
- Ignition leads constructed of nickel plated copper enclosed in high temperature Teflon insulation for dependable operation.
- No electrical noise.

SureLight™ Integrated Furnace Control Board

- Solid-state board contains all necessary controls and relays to operate furnace.
- Induced draft blower is controlled by board. Prior to ignition, a pre-purge cycle for 15 seconds is initiated. After the main burners are turned off, a post-purge cycle for 5 seconds is run.
- Adaptive technology of ignition control board continuously monitors and adjusts the ignitor voltage to operate at minimum ignitor temperature required for ignition, prolonging ignitor life.
- Electronic flame sensor control assures safe and reliable operation.
- Should loss of flame occur, flame sensor controls will initiate 5 attempts at re-ignition before locking out unit operation for 60 minutes.
- Watchguard type circuit automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance calls for service.
- Fan control consists of adjustable blower timed-off delay (60, 90, 120, 180 seconds - factory setting 90 seconds) and fixed blower timed-on delay (45 seconds).
- For air-conditioning applications, blower is automatically energized on thermostat demand for cooling.
- Two accessory terminals furnished for additional power supply requirements for 120 volt (less than 1 amp) power humidifiers and electronic air cleaners.
- Ignition control has two LED's to indicate status and as an aid in troubleshooting.

Gas Control Valve

- 24 volt redundant combination gas control valve combines manual shut off valve (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control.

Combustion Air Inducer

- Shaded pole heavy duty blower prepurges heat exchanger and safely vents flue products.
- Pressure switch proves blower operation before allowing gas valve to open.
- Operates only during heating cycle.
- Direct access allows inducer assembly to be rotated 90° clockwise or counterclockwise to facilitate easy vent attachment in horizontal applications.

Limit Controls

- Automatic reset, primary and secondary limits are accurately located.
- Primary limit factory installed on vestibule panel on all units, secondary limit(s) (all units except G40UH-24A-045) factory installed on blower housing.

Flame Rollout Switches (2)

- Manual reset.
- Factory installed on burner box.
- Switches provide protection from abnormal operating conditions.

FEATURES

24 Volt Transformer

- Furnished and factory installed in control box.
- 40VA transformer has fuse wired in series.

Field Wiring Make-up Box

- Furnished for line voltage wiring.
- Factory installed internally on left side of furnace.
- Box may be installed internally or externally on either side of furnace.

Cabinet

- Low profile, narrow width cabinet allows easy installation.
- Heavy gauge cold rolled steel constructed.
- Pre-painted cabinet finish.
- Flue outlet on top of cabinet for up-flow applications, can be relocated to either side of cabinet for horizontal applications.
- Flanges provided on supply air opening for ease of plenum connection or alignment with evaporator coil.
- Return Air Entry:
 - Bottom/end entry for up-flow/horizontal applications - remove furnished bottom seal panel from cabinet.
 - Side return air entry for up-flow applications - corners are marked on either side of cabinet for return air cut-outs. See dimension drawings.

NOTE - Air volumes over 1800 cfm (850 L/s) for G40UH-48C-135, G40UH-60D-135 and G40UH-60D-155 models require return air from both sides, one side and bottom, or bottom only.

- Insulated cabinet with foil faced insulation on sides and back of heating compartment.
- Complete service access.
- Safety interlock switch automatically shuts off power to unit when blower compartment access door is removed.
- Gas piping and electrical inlets are provided in both sides of cabinet.

Blower

- Multi-speed direct drive blower.
- Statically and dynamically balanced.
- Resiliently mounted.
- Blower assembly easily removed for servicing
- Blower speeds are easily changed on the integrated furnace control board. See blower performance tables.

Coil Match-Up

- All furnaces exactly match C33 cased up-flow and CH33 cased horizontal evaporator coils with same letter designation in model no. No adaptor required. Engaging holes furnished on cabinet for alignment. See specifications table and dimension drawings.
- C33 uncased coils match furnaces without any overhang but require an optional adaptor base or field fabricated transition to match furnace opening. See C33 coil bulletin for additional information.

Filter (Not Furnished)

- Filter and provisions for external mounting must be field provided.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Air Filter and Rack Kit for Horizontal Return (End)

- Washable or vacuum cleanable polyurethane frame type filter and external end return air rack available for field installation.
- See Specifications table for order no.
- Rack has filter door for easy filter servicing.
- Flanges on rack allow easy duct connection.
- See dimension drawing.

Air Filter and Rack Kit for Side Return

- Washable or vacuum cleanable polyurethane frame type filter and external side return air rack available for field installation.
- Available in single and ten pack kits.
- See Specifications table for order no.
- Rack has filter door for easy filter servicing.
- Flanges on rack allow easy duct connection.
- Field installs on either side of unit cabinet. See dimension drawing.

Furnace Twinning Kit

- Field installed kit (15L38) is required to operate two furnaces simultaneously.
- Kit consists of twinning control and two fan sensors.

High Altitude Pressure Switch Kit

- Required on certain units for proper unit operation on installations above 4,500 ft. (1372 m).
- See Specifications table for applications and catalog numbers.

Horizontal Support Frame Kit

- Provides support of unit in horizontal applications.
- Consists of (2) 1 x 1-1/2 x 32-5/8 in. (25 x 38 x 829 mm) and (2) 1 x 3 x 53-7/8 in. (25 x 76 x 1368 mm) painted heavy gauge cold rolled steel support channels with assembly and suspending holes.
- Bolts and nuts furnished for field assembly.
- Suspending rods must be field provided.
- See Specifications table for catalog no.

LPG/Propane Conversion Kit

- Required for field changeover from natural gas.
- See Specifications table for catalog number.

Thermostat

- See Thermostats bulletin in Thermostats and Controls section and Lennox Price Book for a complete list of thermostats.

SPECIFICATIONS

Model No.	G40UH-24A-045	G40UH-36A-070	G40UH-36B-090	G40UH-48B-090
Model No. - "X" Models	G40UH-24A-045X	G40UH-36A-070X	----	G40UH-48B-090X
Input - Btuh (kW)	44,000 (12.9)	66,000 (19.3)	88,000 (25.8)	
Output - Btuh (kW)	36,000 (10.5)	54,100 (15.6)	72,100 (21.1)	
☆AFUE	80.0%			
California Seasonal Efficiency	74.2%	74.8%	75.7%	75.3%
High static (AGA/CGA) - in. w.g. (Pa)	.50 (124)			
Flue connection - in. (mm) round	4 (102)			
Gas pipe size IPS - in. (mm)	1/2 (12.7)			
Temperature rise range - °F (°C)	35 - 65 (19 - 36)	40 - 70 (22 - 39)		
Blower wheel nom. dia. & width - in. (mm)	10 x 7 (254 x 178)	10 x 8 (254 x 203)	10 x 10 (254 x 254)	
Blower motor output - hp (W)	1/5 (149)	1/3 (249)	1/2 (373)	
Tons (kW) of add-on cooling	1 - 2 (3.5 - 7.0)	1 - 3 (3.5 - 10.6)	2 - 4 (7.0 - 14.1)	
Shipping weight - lbs. (kg) 1 package	121 (55)	132 (60)	146 (66)	153 (69)
Electrical characteristics	120 volts - 60 hertz - 1 phase (less than 12 amps)			
① Matching C33 (up-flow cased) / CH33 (horizontal) Coils	C33-18A-F, C33-24A-F, C33-30A-F, C33-36A-F, C33-38A-F, CH33-18A-F, CH33-30A-F, CH33-36A-F		C33-24B-F, C33-30B-F, C33-36B-F, C33-38B-F, C33-42B-F, C33-48B-F, CH33-36B-F, CH33-42B-F, CH33-44B-F	
OPTIONAL ACCESSORIES (MUST BE ORDERED EXTRA)				
③ Air Filter and Rack Kit-Horizontal (end) No. and size of filters - in. (mm)	87L95 (1) 14 x 25 x 1 (356 x 635 x 25)		87L96 (1) 18 x 25 x 1 (457 x 635 x 25)	
③ Air Filter and Rack Kit-Side Return No. and size of filters - in. (mm)	Single 44J22 or Ten Pack (66K63) (1) 16 x 25 x 1 (406 x 635 x 25)			
② High Altitude Pressure Switch Kit	56L32		49L90	
Horizontal Support Frame Kit Ship. Wt. - lbs. (kg.)	56J18 — 18 lbs. (8 kg)			
LPG/Propane kit	45L60			
Twinning Kit	15L38			

☆Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.
NOTE - Filters and provisions for mounting are not furnished and must be field provided.

① C33 uncased coils - The same uncased models match the furnaces shown but require an optional adaptor base or field fabricated transition. See C33 coil bulletin for additional information.

② Required for proper operation at altitudes over 4,500 ft. (1370 m).

③ Cleanable polyurethane frame type filter.

SPECIFICATIONS

Model No.	G40UH-48C-110	G40UH-48C-135	G40UH-60D-135	G40UH-60D-155
Input - Btuh (kW)	110,000 (32.2)	132,000 (38.7)	132,000 (38.7)	154,000 (45.1)
Output - Btuh (kW)	90,200 (26.4)	106,900 (31.3)	106,900 (31.3)	124,700 (36.5)
☆AFUE	80.0%			
California Seasonal Efficiency	75.7%	76.0%	75.0%	75.6%
High static (AGA/CGA) - in. w.g. (Pa)	.50 (124)			
Flue connection - in. (mm) round	4 (102)	5 (127)		
Gas pipe size IPS - in. (mm)	1/2 (12.7)			
Temperature rise range - °F (°C)	40 - 70 (22 - 39)	50 - 80 (28 - 44)	45 - 75 (25 - 42)	50 - 80 (28 - 44)
Blower wheel nom. dia. & width - in. (mm)	10 x 10 (254 x 254)		11-1/2 x 10 (292 x 254)	
Blower motor output - hp (W)	1/2 (373)		3/4 (560)	
Tons (kW) of add-on cooling	2 - 4 (7.0 - 14.1)		5 - 5+ (17.6 - 17.6+)	
Shipping weight - lbs. (kg) 1 package	169 (77)	178 (81)	192 (87)	201 (91)
Electrical characteristics	120 volts - 60 hertz - 1 phase (less than 12 amps)			
① Matching C33 (up-flow cased) / CH33 (horizontal) Coils	C33-36C-F, C33-48C-F, C33-50C-F, CH33-36C-F, CH33-48C-F, CH33-50C-F		C33-60D, C33-62D CH33-60D, CH33-62D	
OPTIONAL ACCESSORIES (MUST BE ORDERED EXTRA)				
③ Air Filter and Rack Kit-Horizontal (end) No. and size of filters - in. (mm)	87L97 (1) 20 x 25 x 1 (508 x 635 x 25)		87L98 (1) 25 x 25 x 1 (635 x 635 x 25)	
③ Air Filter and Rack Kit-Side Return No. and size of filters - in. (mm)	Single 44J22 or Ten Pack (66K63) (1) 16 x 25 x 1 (406 x 635 x 25)			
② High Altitude Pressure Switch Kit	49L90			
Horizontal Support Frame Kit Ship. Wt. - lbs. (kg.)	56J18 — 18 lbs. (8 kg)			
LPG/Propane kit	45L60			
Twinning Kit	15L38			

☆Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

NOTE - Filters and provisions for mounting are not furnished and must be field provided.

① C33 uncased coils - The same uncased models match the furnaces shown but require an optional adaptor base or field fabricated transition. See C33 coil bulletin for additional information.

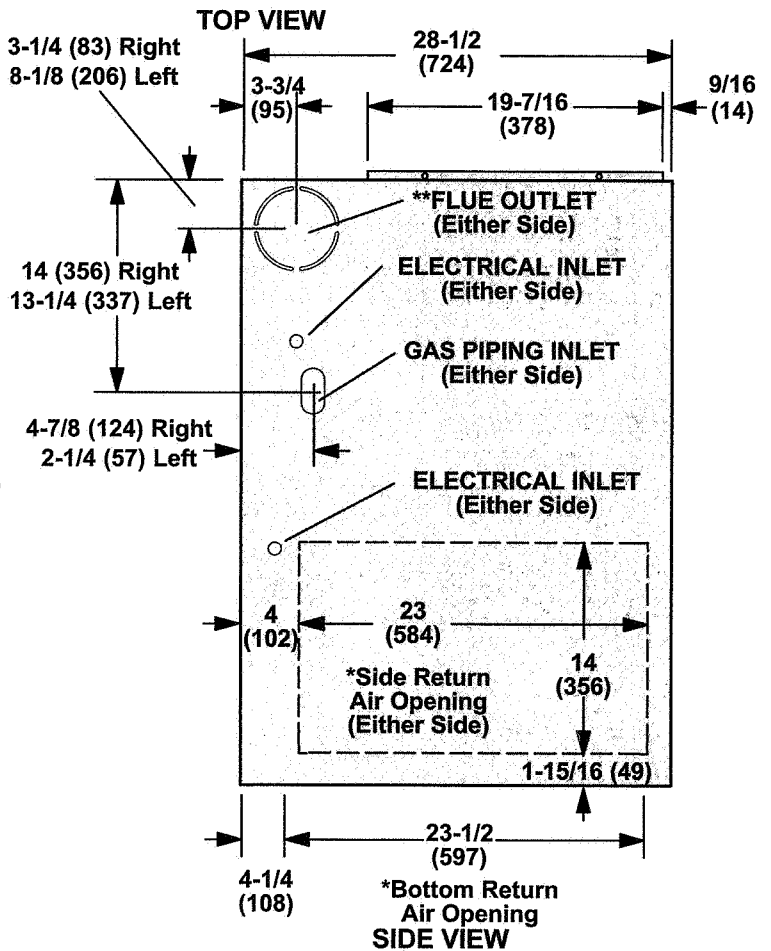
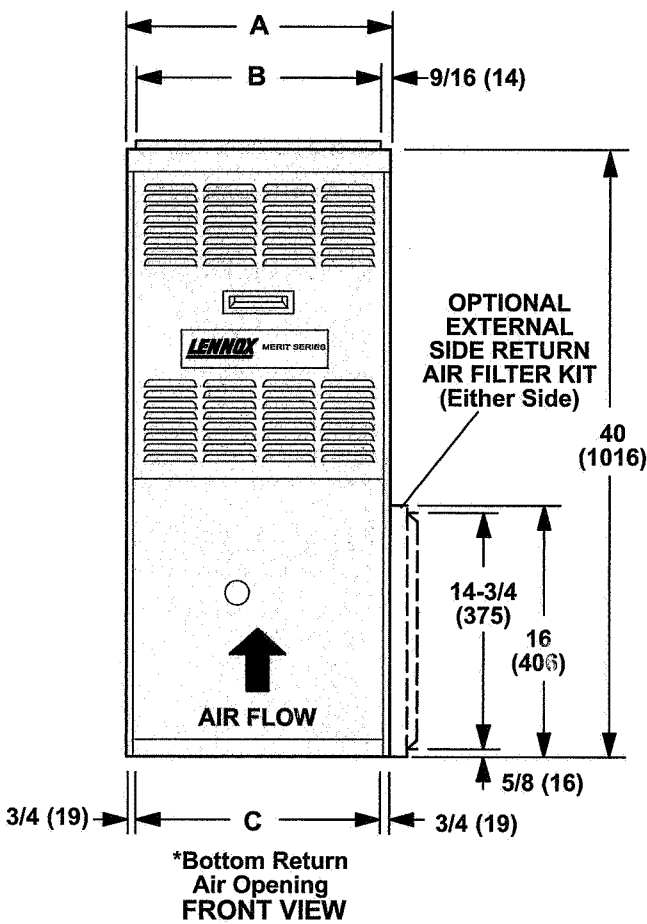
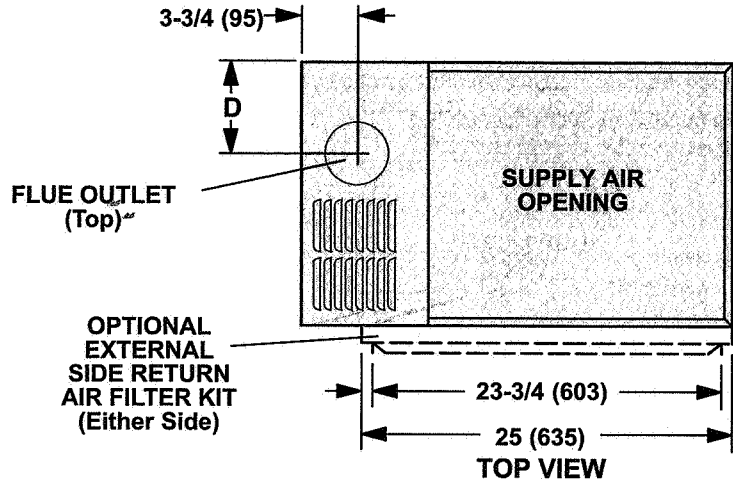
② Required for proper operation at altitudes over 4,500 ft. (1370 m).

③ Cleanable polyurethane frame type filter.

DIMENSIONS - INCHES (MM) - UP-FLOW POSITION

***NOTE - Air volumes over 1800 cfm (850 L/s) for G40UH-48C-135, G40UH-60D-135 and G40UH-60D-155 models require return air from both sides, one side and bottom, or bottom only.**

**Flue outlet may be horizontal but furnace must be vented vertically.

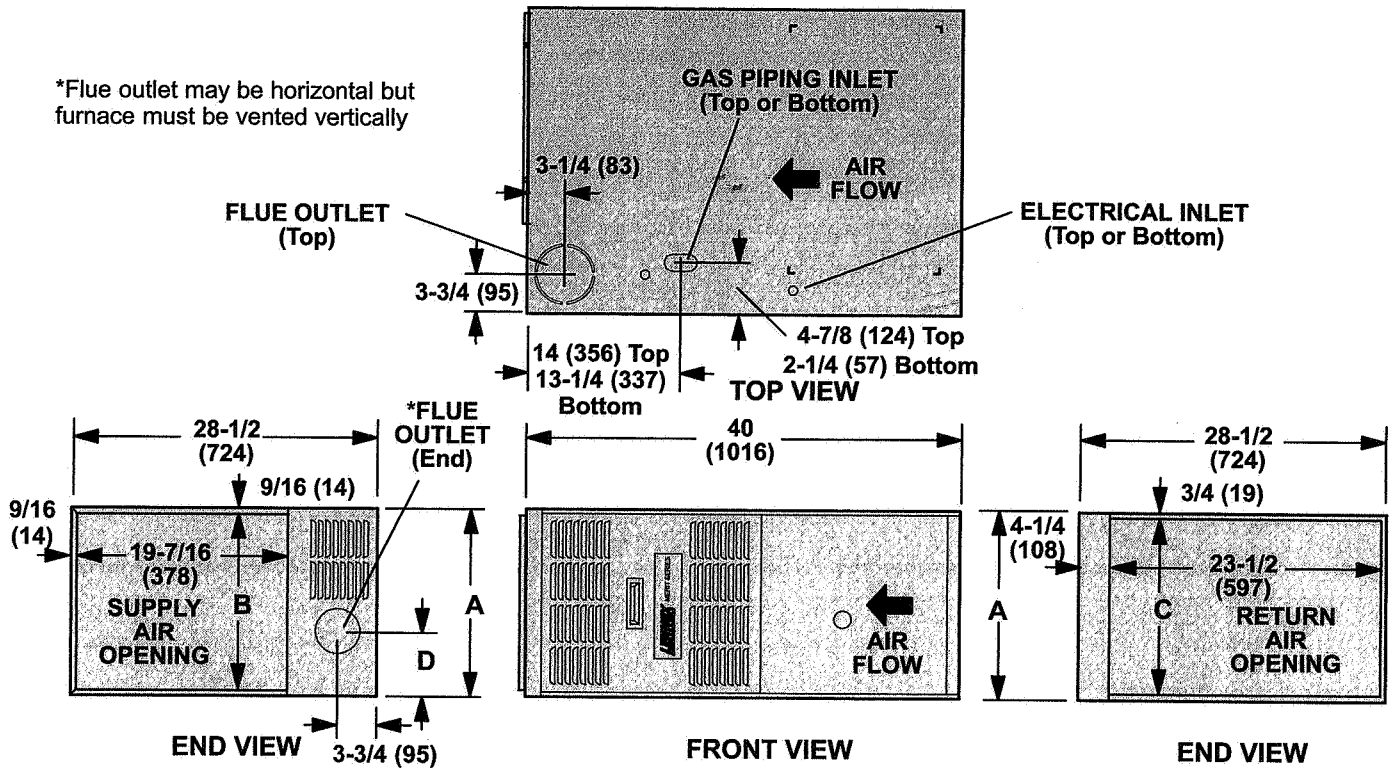


Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
G40UH-24A-045	14-1/2	368	13-3/8	340	13	330	4-1/2	114
G40UH-36A-070	14-1/2	368	13-3/8	340	13	330	4-1/2	114
G40UH-36B-090	17-1/2	446	16-3/8	416	16	406	6	152
G40UH-48B-090	17-1/2	446	16-3/8	416	16	406	6	152
G40UH-48C-110, G40UH-48C-135	21	533	19-7/8	454	19-1/2	495	7-3/4	197
G40UH-60D-135 G40UH-60D-155	24-1/2	622	23-3/8	546	23	584	9-1/2	241

DIMENSIONS - INCHES (MM) - HORIZONTAL POSITION

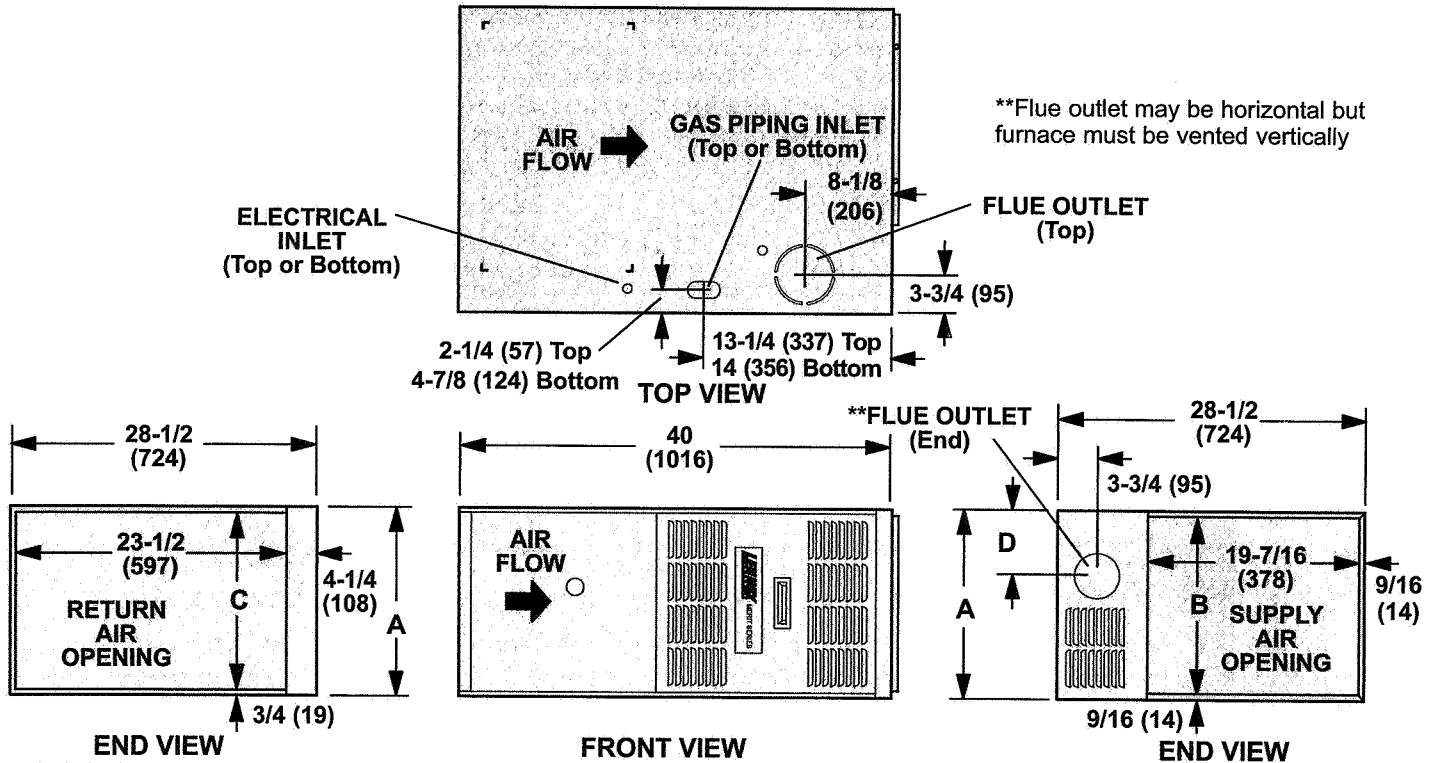
LEFT-HAND AIR DISCHARGE

*Flue outlet may be horizontal but furnace must be vented vertically



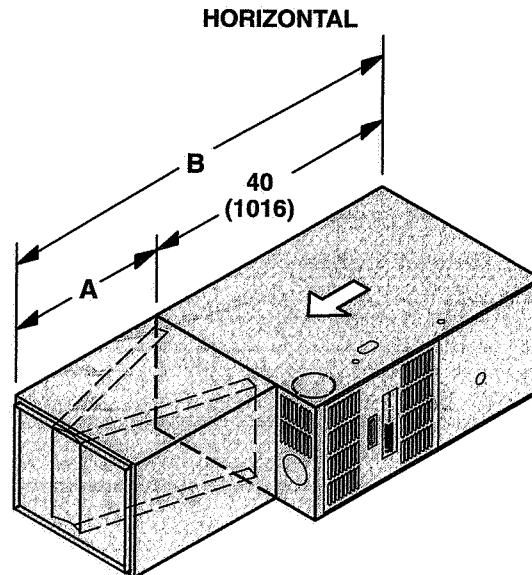
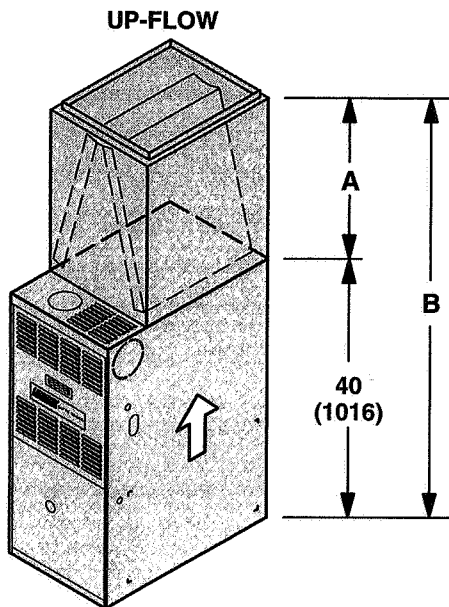
RIGHT-HAND AIR DISCHARGE

**Flue outlet may be horizontal but furnace must be vented vertically



Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
G40UH-24A-045	14-1/2	368	13-3/8	340	13	330	4-1/2	114
G40UH-36A-070	14-1/2	368	13-3/8	340	13	330	4-1/2	114
G40UH-36B-090	17-1/2	446	16-3/8	416	16	406	6	152
G40UH-48B-090	17-1/2	446	16-3/8	416	16	406	6	152
G40UH-48C-110	21	533	19-7/8	454	19-1/2	495	7-3/4	197
G40UH-48C-135								
G40UH-60D-135	24-1/2	622	23-3/8	546	23	584	9-1/2	241
G40UH-60D-155								

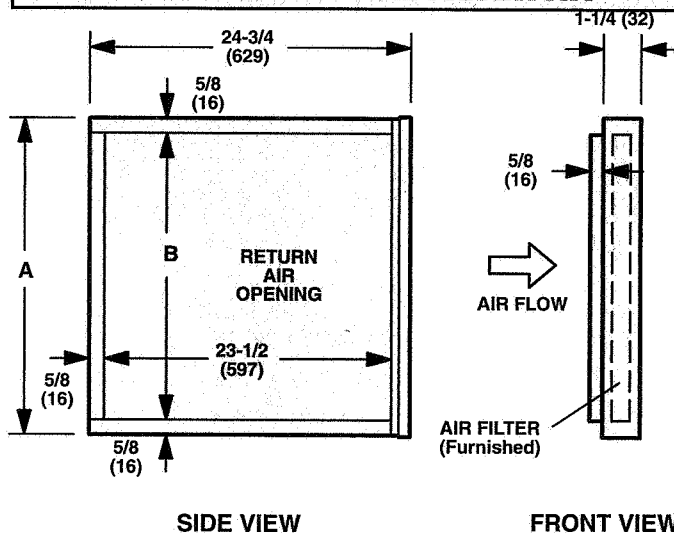
DIMENSIONS - INCHES (MM) - FURNACE/COIL COMBINATIONS



Model No.	A		B	
	in.	mm	in.	mm
C33-18A uncased	10-3/4	273	50-3/4	1289
C33-24A uncased	14-3/4	375	54-3/4	1391
C33-24B uncased	14-3/4	375	54-3/4	1391
C33-30A uncased	18-3/4	476	58-3/4	1492
C33-30B uncased	18-3/4	476	58-3/4	1492
C33-36A uncased	22-3/4	578	62-3/4	1594
C33-36B uncased	22-3/4	578	62-3/4	1594
C33-36C uncased	22-3/4	578	62-3/4	1594
C33-38A uncased	22-3/4	578	62-3/4	1594
C33-38B uncased	22-3/4	578	62-3/4	1594
C33-42B uncased	22-3/4	578	62-3/4	1594
C33-44C uncased	22-3/4	578	62-3/4	1594
C33-48B uncased	22-3/4	578	62-3/4	1594
C33-48C uncased	22-3/4	578	62-3/4	1594
C33-50/60C uncased	26-3/4	578	66-3/4	1695
C33-60D uncased	24-3/4	629	64-3/4	1645
C33-62D uncased	28-3/4	730	68-3/4	1746

Model No.	A		B	
	in.	mm	in.	mm
CH33-18A-F cased	21-1/2	546	41-1/2	1054
CH33-24/30A-F cased	26-1/2	673	66-1/2	1689
CH33-36A-F cased	26-1/2	673	66-1/2	1689
CH33-36B-F cased	26-1/2	673	66-1/2	1689
CH33-36C-F cased	26-1/2	673	66-1/2	1689
CH33-42B-F cased	26-1/2	673	66-1/2	1689
CH33-44/48B-F cased	31-1/2	800	71-1/2	1816
CH33-48C-F cased	26-1/2	673	66-1/2	1689
CH33-50/60C-F cased	31-1/2	800	71-1/2	1816
CH33-60D-F cased	26-1/2	673	66-1/2	1689
CH33-62D-F cased	31-1/2	800	71-1/2	1816

OPTIONAL HORIZONTAL FILTER KIT



Model No.	A		B	
	in.	mm	in.	mm
C33-18A-F cased	16-1/2	419	56-1/2	1435
C33-24A-F cased	16-1/2	419	56-1/2	1435
C33-24B-F cased	16-1/2	419	56-1/2	1435
C33-30A-F cased	20-1/2	521	60-1/2	1537
C33-30B-F cased	20-1/2	521	60-1/2	1537
C33-36A-F cased	24-1/2	622	64-1/2	1638
C33-36B-F cased	24-1/2	622	64-1/2	1638
C33-36C-F cased	24-1/2	622	64-1/2	1638
C33-38A-F cased	24-1/2	622	64-1/2	1638
C33-38B-F cased	24-1/2	622	64-1/2	1638
C33-42B-F cased	24-1/2	622	64-1/2	1638
C33-44C-F cased	24-1/2	622	64-1/2	1638
C33-48B-F cased	24-1/2	622	64-1/2	1638
C33-48C-F cased	24-1/2	622	64-1/2	1638
C33-50/60C-F cased	31-1/2	800	71-1/2	1816
C33-60D-F cased	26-1/2	673	66-1/2	1689
C33-62D-F cased	31-1/2	800	71-1/2	1816

Model No.	A		B	
	inch	mm	inch	mm
A	14	356	12-3/4	324
B	18	457	16-3/4	425
C	21	533	18-3/4	476
D	25	635	23-3/4	603

INSTALLATION CLEARANCES - INCHES (MM)

UP-FLOW POSITION

Vent Type	Type "B1"	Type "C"
Sides	0 inches (0 mm)	10 inches (254 mm)
Rear	0 inches (0 mm)	0 inches (0 mm)
Top	1 inch (25 mm)	1 inch (25 mm)
Front	3 inches (76 mm)	3 inches (76 mm)
Front (alcove)	24 inches (610 mm)	24 inches (610 mm)
Front (service)	24 inches (610 mm)	24 inches (610 mm)
Floor	Combustible	Combustible
Flue	1 inch (25 mm)	6 inch (152 mm)

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-149.1, & CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

NOTE—In the U.S. flue sizing must conform to the methods outlined 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 2.

☐ Left side requires 4 in. (102 mm) if single wall vent is used on 14-1/2 in. (368 mm) cabinets, 2 in. (76 mm) on 17-1/2 in. (980 mm) cabinets.

HORIZONTAL POSITION

Vent Type	Type "B1"	Type "C"
☐ Ends	2 inches (51 mm)	2 inches (51 mm)
Rear	0 inches (0 mm)	0 inches (0 mm)
☐ Top	10 inches (254 mm)	10 inches (254 mm)
Front	3 inches (76 mm)	3 inches (76 mm)
Front (service)	24 inches (610 mm)	24 inches (610 mm)
Front (service)	24 inches (610 mm)	24 inches (610 mm)
Floor	0 inches (0 mm)	0 inches (0 mm)
Flue	1 inch (25 mm)	6 inch (152 mm)

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-149.1, & CAN/CGA-149.2 "Installation Code for Gas Burning Appliances".

NOTE—In the U.S. flue sizing must conform to the methods outlined 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 2.

☐ Line contact installation permissible between jacket top or sides and building joists.

BLOWER/WATTS DATA

G40UH-24A-045 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds								
		High			Medium			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	1090	514	458	905	427	391	725	342	302
0.05	12	1080	510	451	900	425	389	720	340	299
0.10	25	1065	503	444	895	422	386	710	335	296
0.15	37	1050	496	434	893	421	380	700	330	292
0.20	50	1030	486	424	890	420	374	690	326	288
0.25	62	1015	479	417	875	413	370	680	321	284
0.30	75	995	470	409	860	406	363	665	314	280
0.40	100	960	453	394	840	396	349	650	307	271
0.50	125	910	429	378	795	375	333	610	288	259
0.60	150	840	396	356	750	354	317	540	255	247
0.70	175	770	363	339	665	314	295	490	231	237
0.80	200	660	311	314	555	262	276	420	198	224
0.90	225	560	264	297	480	227	260	355	168	208

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.

G40UH-36A-070 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds											
		High			Medium-High			Medium-Low			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	1500	708	707	1290	609	567	985	465	455	830	392	373
0.05	12	1475	696	693	1275	602	556	980	463	447	820	387	367
0.10	25	1450	684	678	1255	592	544	970	458	438	810	382	360
0.15	37	1425	673	668	1240	585	534	965	455	431	805	380	355
0.20	50	1400	661	657	1225	578	523	955	451	424	795	375	349
0.25	62	1370	647	643	1205	569	512	945	446	416	790	373	343
0.30	75	1340	632	628	1180	557	501	930	439	407	780	368	336
0.40	100	1285	606	608	1140	538	476	900	425	391	745	352	324
0.50	125	1215	573	581	1080	510	451	865	408	373	705	333	310
0.60	150	1150	543	561	1015	479	430	810	382	356	655	309	290
0.70	175	1060	500	536	940	444	403	730	345	330	585	276	271
0.80	200	955	451	514	798	377	368	655	309	307	480	227	260
0.90	225	785	370	477	606	286	325	585	276	272	410	193	254

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.

BLOWER/WATTS DATA

G40UH-36B-090 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds											
		High			Medium-High			Medium-Low			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	1500	708	721	1255	592	593	1040	491	461	900	425	372
0.05	12	1485	701	704	1250	590	582	1038	490	452	895	422	367
0.10	25	1465	691	687	1240	585	570	1035	488	443	890	420	361
0.15	37	1450	684	673	1235	583	557	1033	488	438	885	418	357
0.20	50	1435	677	659	1225	578	543	1030	486	433	880	415	352
0.25	62	1420	670	644	1215	573	531	1025	484	424	875	413	346
0.30	75	1400	661	628	1200	566	519	1020	481	414	870	411	340
0.40	100	1345	635	596	1170	552	495	1000	472	400	855	404	328
0.50	125	1300	614	573	1135	536	474	965	455	382	830	392	298
0.60	150	1235	583	543	1080	510	445	930	439	362	780	368	289
0.70	175	1165	550	511	1020	481	416	870	411	339	740	349	279
0.80	200	1080	510	478	940	444	387	800	378	316	670	316	260
0.90	225	985	465	445	840	396	354	710	335	290	600	283	246

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.

G40UH-48B-090 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds											
		High			Medium-High			Medium-Low			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	1970	930	792	1810	854	733	1585	748	670	1340	632	564
0.05	12	1940	916	778	1785	842	714	1580	746	650	1335	630	553
0.10	25	1915	904	763	1760	831	694	1570	741	629	1325	625	541
0.15	37	1880	887	747	1730	816	658	1560	736	616	1323	624	531
0.20	50	1840	868	731	1700	802	622	1545	729	602	1320	623	520
0.25	62	1805	852	713	1670	788	625	1520	717	584	1310	618	511
0.30	75	1765	833	694	1640	774	627	1490	703	566	1295	611	502
0.40	100	1695	800	671	1570	741	595	1440	680	542	1260	595	479
0.50	125	1600	755	633	1490	703	562	1360	642	507	1195	564	450
0.60	150	1505	710	598	1400	661	530	1285	606	479	1140	538	424
0.70	175	1395	658	567	1265	597	483	1170	552	440	990	467	378
0.80	200	1250	590	522	1100	519	443	975	460	390	905	427	355
0.90	225	1005	474	461	870	411	385	900	425	366	810	382	325

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.

G40UH-48C-110 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds											
		High			Medium-High			Medium-Low			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2015	951	893	1620	765	779	1340	632	640	1150	543	524
0.05	12	1990	939	871	1615	762	762	1340	632	640	1150	543	524
0.10	25	1965	927	849	1610	760	745	1340	632	640	1150	543	524
0.15	37	1930	911	827	1605	757	727	1337	631	630	1150	543	524
0.20	50	1895	894	804	1600	755	708	1335	630	615	1150	543	524
0.25	62	1860	878	784	1590	750	693	1332	629	603	1150	543	519
0.30	75	1820	859	763	1580	746	677	1330	628	590	1145	540	514
0.40	100	1740	821	727	1530	722	636	1320	623	562	1140	538	490
0.50	125	1665	786	697	1475	696	598	1285	606	527	1120	529	470
0.60	150	1575	743	652	1405	663	556	1230	580	491	1075	507	443
0.70	175	1475	696	611	1310	618	514	1165	550	468	1015	479	414
0.80	200	1350	637	562	1210	571	483	1080	510	431	930	439	379
0.90	225	1210	571	521	1070	505	432	870	411	365	740	349	324

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.

BLOWER/WATTS DATA

G40UH-48C-135 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds											
		High			Medium-High			Medium-Low			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2075	979	822	1800	849	710	1425	673	568	1115	525	437
0.05	12	2035	959	805	1785	842	693	1425	671	558	1120	528	434
0.10	25	1990	940	788	1765	834	676	1420	670	547	1125	531	430
0.15	37	1950	919	767	1740	822	660	1410	666	537	1125	530	424
0.20	50	1905	899	746	1715	809	644	1405	663	527	1120	529	418
0.25	62	1865	881	731	1680	794	627	1390	655	515	1115	525	412
0.30	75	1825	862	715	1650	778	609	1375	648	503	1105	522	405
0.40	100	1740	820	679	1585	747	579	1355	639	485	1090	514	390
0.50	125	1640	775	646	1495	705	543	1300	613	457	1050	495	371
0.60	150	1540	728	615	1420	671	514	1225	578	428	1000	472	353
0.70	175	1420	670	574	1310	617	473	1140	537	400	935	441	332
0.80	200	1260	594	520	1155	546	427	1025	483	366	865	409	313
0.90	225	1125	531	497	1010	476	386	880	416	330	750	354	283

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.
 NOTE - Air data shown is bottom return air only.
 NOTE - Air volumes over 1800 cfm (850 L/s) require return air from both sides, one side and bottom, or bottom only.

G40UH-60D-135 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds											
		High			Medium-High			Medium-Low			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2465	1163	1205	2325	1098	1061	2155	1016	930	1895	893	779
0.05	12	2430	1146	1194	2295	1083	1050	2125	1002	919	1875	884	771
0.10	25	2395	1129	1182	2265	1069	1038	2095	988	908	1855	875	763
0.15	37	2350	1110	1167	2230	1052	1024	2070	976	899	1830	864	754
0.20	50	2310	1091	1152	2195	1036	1010	2045	964	890	1805	852	745
0.25	62	2265	1070	1137	2155	1017	996	2010	948	877	1785	842	737
0.30	75	2220	1049	1122	2115	998	982	1975	932	863	1765	832	729
0.40	100	2120	1001	1082	2035	961	949	1915	903	845	1715	810	718
0.50	125	2050	968	1053	1955	923	925	1830	864	816	1645	776	698
0.60	150	1930	912	1017	1860	878	894	1745	824	795	1585	747	681
0.70	175	1835	865	985	1775	838	869	1655	781	769	1530	722	670
0.80	200	1720	811	953	1645	777	829	1560	736	745	1445	683	650
0.90	225	1595	754	923	1535	724	802	1455	687	719	1310	619	621

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.
 NOTE - Air data shown is bottom return air only.
 NOTE - Air volumes over 1800 cfm (850 L/s) require return air from both sides, one side and bottom, or bottom only.

G40UH-60D-155 PERFORMANCE

External Static Pressure		Air Volume / Watts at Various Blower Speeds											
		High			Medium-High			Medium-Low			Low		
in. w.g.	Pa	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2380	1122	1135	2235	1054	1002	2060	972	875	1875	884	752
0.05	12	2340	1105	1129	2205	1041	990	2035	961	864	1840	869	743
0.10	25	2305	1088	1123	2180	1028	977	2015	950	853	1810	854	734
0.15	37	2265	1068	1106	2145	1011	962	1990	938	843	1790	844	726
0.20	50	2220	1047	1089	2105	994	946	1960	925	833	1765	833	718
0.25	62	2180	1029	1076	2080	980	935	1935	912	823	1740	822	709
0.30	75	2145	1011	1063	2050	966	923	1905	899	813	1715	810	700
0.40	100	2060	972	1041	1975	931	898	1845	871	793	1655	781	683
0.50	125	1955	923	1004	1890	892	870	1765	833	768	1610	759	671
0.60	150	1885	890	977	1795	848	840	1695	801	748	1560	736	655
0.70	175	1800	849	957	1730	815	817	1605	758	721	1480	698	634
0.80	200	1700	803	929	1630	768	786	1520	717	694	1405	662	613
0.90	225	1575	743	893	1525	720	758	1395	658	661	1285	607	585

NOTE - All air data is measured external to unit with 1 in. (25 mm) cleanable filter (not furnished - field provided) in place. Also see Filter Air Resistance table.
 NOTE - Air data shown is bottom return air only.
 NOTE - Air volumes over 1800 cfm (850 L/s) require return air from both sides, one side and bottom, or bottom only.

FILTER AIR RESISTANCE

cfm (L/s)	in. w.g. (Pa)
0 (0)	0.00 (0)
200 (95)	0.01 (0)
400 (190)	0.03 (5)
600 (285)	0.04 (10)
800 (380)	0.06 (15)
1000 (470)	0.09 (20)
1200 (565)	0.12 (30)
1400 (660)	0.15 (35)
1600 (755)	0.19 (45)
1800 (850)	0.23 (55)
2000 (945)	0.27 (65)
2200 (1040)	0.33 (80)
2400 (1130)	0.38 (95)
2600 (1225)	0.44 (110)

HIGH ALTITUDE INFORMATION

All models - Pressure regulator adjustment may be required depending on altitude. See below for proper pressure regulator setting.

Manifold Pressure (Outlet) in. w.g. (kPa)				
FUEL	ALTITUDE ft. (m)			
	0-4500 (0-1372)	4501-5500 (1373-1676)	5501-6500 (1677-1981)	6501-7500 (1982-2286)
Natural Gas	3.5 (.87)	3.3 (.82)	3.2 (.80)	3.1 (.77)
LPG/Propane	10.0 (2.49)			

Pressure switch is factory set. No adjustment necessary. All models use the factory installed pressure switch from 0-4500 feet (0-1370 m). Units require a High Altitude Pressure Switch kit if installed at altitudes above 4500 feet (1370 m).

Order **56L32** for -045, -070 models.

Order **49L90** for -090, -110, -135, -155 models.

