



ENGINEERING DATA

GAS FURNACES

G41UF

MERIT® SERIES

Up-Flow - Single Pipe

AFUE - 90.0%

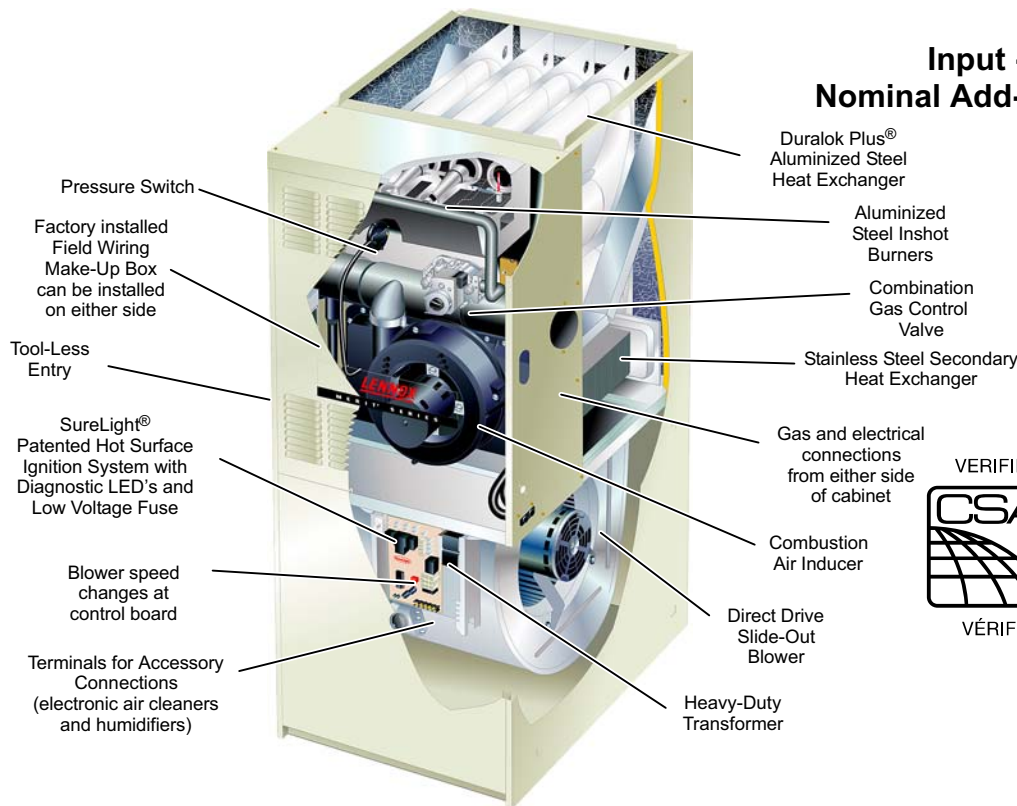
Input - 44,000 to 132,000 Btuh

Nominal Add-on Cooling - 1 to 5 tons

Bulletin No. 210369

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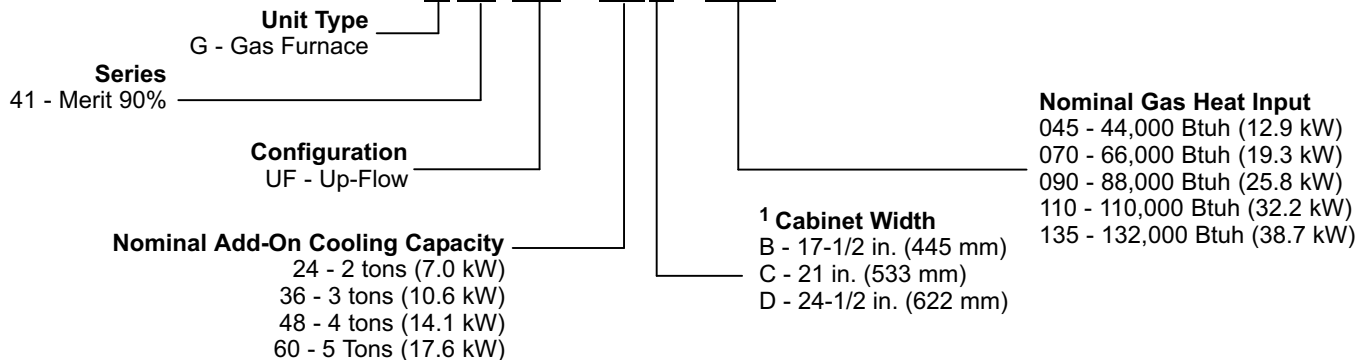


Energy Performance Rendement Énergétique



MODEL NUMBER IDENTIFICATION

G 41 UF - 24 B - 045



¹ Evaporator coils with the same letter designation will physically match the furnace.

FEATURES

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WARRANTY

Duralok Plus® Aluminized Steel Heat Exchangers - twenty year limited warranty.

SureLight® ignition control module - 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.

Visit us at www.lennox.com

For the latest technical information, www.davenet.com

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

Input capacities of 44,000, 66,000, 88,000, 110,000, and 132,000 Btuh (12.9, 19.3, 25.8, 32.2, and 38.7 kW).
Energy efficiency (AFUE) of 90.0%
Compact cabinet with either side or bottom return-air entry.
Single-pipe venting for installation flexibility.
Lennox add-on evaporator coils, electronic air cleaners and humidifiers can easily be added to furnace.
Shipped factory assembled with all controls installed and wired.
Each unit factory test operated to ensure proper operation.

APPROVALS

Units certified by CSA International and ratings are certified by GAMA.
Units tested and rated according to US DOE test procedures and FTC labeling regulations.
Blower data from unit tests conducted in Lennox Laboratory air test chamber.
ISO 9001 Registered Manufacturing Quality System.

HEATING SYSTEM

Lennox Duralok Plus® Heat Exchanger Assembly

Lennox developed heat exchanger assembly consists of primary heat exchanger and secondary condenser coil assembly.
Main 3-pass clamshell type heat exchanger constructed of heavy-gauge, aluminized steel
Designed for normal expansion and contraction.
Crimped seam design and construction provides maximum efficiency and minimum resistance to airflow.
Secondary heat exchanger condenser coil constructed of aluminum fins fitted to stainless steel tubes.
Coil is factory tested for leaks.
Condensate drain header box assembly located on front of coil.
Compact size of complete heat exchanger assembly permits low overall design of furnace cabinet.
All components mounted in a heavy-gauge steel frame.
Heat exchanger assembly has been laboratory life cycle tested.

Lennox Designed Flue Condensate Trap Assembly

Condensate trap assembly is mounted outside the conditioned air stream.
Accessible from either side of the cabinet.
Connection can be made with field provided 1/2 in. PVC pipe, 3/4 in. PVC coupling, or 1-1/4 in. OD x 1 in. ID tubing with hose clamp.
Easy to clean and winterize.
Only one condensate connection needed.

Lennox Designed Header Box

Header box on end of condenser coil collects flue condensate for disposal through condensate collars
Hose connects the header box drains to the condensate collars
The condensate collars are located on each side of the cabinet for easy field installation of condensate drain trap. Only one collar is used, the other one is plugged.
Condensate drain trap is included with the unit for field installation.

Inshot Burners

Aluminized steel inshot burners provide efficient, trouble-free operation.
Burner venturi mixes air and gas in correct proportion for proper combustion.
Burner assembly is removable from the unit as a single component for ease of service.

SureLight® Hot Surface Ignition

Tough, reliable, long-life, trouble-free performance.
Tungsten heater element sandwiched between two plates of silicon nitride.
Cemented to steatite 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.

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.

Limit Controls

Automatic reset limits (primary and secondary) are accurately located.
Primary limit factory installed on vestibule panel on all units.
Secondary limit factory installed on combustion air inducer on 90, 110, and 135 input models.

Flame Rollout Switch

Manual reset switch is factory installed on burner box.
Switch provides protection from abnormal operating conditions.

CONTROLS

SureLight® Integrated Furnace Control Board

Solid-state board contains all necessary controls and relays to operate furnace.
Combustion air inducer 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.

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.

BLOWER

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

FILTER (NOT FURNISHED)

Filter and provisions for external mounting must be field provided.

FEATURES

CABINET

Low-profile, narrow width cabinet allows easy installation.
Heavy-gauge, cold rolled steel constructed.
Pre-painted cabinet finish.
Flanges provided on supply air opening for ease of plenum connection or alignment with evaporator coil.

Return Air Entry:

For bottom return-air entry, remove furnished bottom seal panel from cabinet.

For side return-air entry (up-flow applications only), corners are marked on either side of cabinet for return air cut-outs. On furnaces with side return air and condensate trap on the same side of the cabinet, a field fabricated transition or RAB is required to use an IAQ product higher than 14-3/16 in. (360 mm) when installed next to the unit and serviced from the front. IAQ products higher than 20 in. (508 mm) require a field fabricated transition. See dimension drawings.

NOTE - 60C and 60D size units that require air volumes over 1800 cfm (850 L/s) must have one of the following:

1. Single side return air with transition, to accommodate 20 x 25 x 1 in. (508 x 635 x 25 mm) cleanable air filter, required to maintain proper air velocity.
2. Single side return air with optional RAB Return Air Base.
3. Bottom return air.
4. Return air from both sides.
5. Bottom and one side return air.

See Blower Performance Tables for additional information.

Coil Match-Up

All furnaces exactly match C33 and CX34 cased up-flow evaporator coils with same letter designation in model number. 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.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

FILTERS

Air Filter and Rack Kit for Side Return Air Applications - Not for use with RAB Return Air Base

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.

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.

EZ Filter Base for Bottom Return Air Applications

Hinged door with thumbscrew for easy filter access.
Uses standard size filters (field provided).

HIGH ALTITUDE KITS

High Altitude Orifice Kit - Natural Gas Only

Required for all natural gas models for proper unit operation at altitudes of 7501 to 10,000 feet (2286 to 3048 m).
Proper orifice for LPG/Propane models is included with LPG/Propane Conversion Kit.

High Altitude Pressure Switch Kit

Required on certain units for proper unit operation on installations above 4,500 ft. (1372 m).

LPG/PROPANE CONVERSION KIT

Required for field changeover from natural gas.

RAB RETURN AIR BASE

On furnaces with side return air and condensate trap on the same side of the cabinet, a field fabricated transition or RAB is required when installing an IAQ product higher than 14-3/16 in. (360 mm) when installed next to the unit and serviced from the front. IAQ products higher than 20 in. (508 mm) require a field fabricated transition.

Must be used for 60C and 60D models with air volumes over 1800 cfm (850 L/s) in up-flow applications when only one side return is required.

Cabinet is pre-painted steel to match the furnace.
See Dimension Drawing.

CONTROLS

Thermostat

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

Furnace Twinning Kit

Required to operate two furnaces simultaneously.
Kit consists of twinning control and two fan sensors.

TERMINATION KITS

Roof Termination Kit

NOTE - Kit contains enough parts for two installations.
Facilitates installation of flue exhaust pipe.
3 inch (76 mm) kit contains two neoprene rubber roof flashings. See Specifications table and dimension drawings.
Refer to venting table in this bulletin to determine pipe size needed and proper termination kit required.

Wall Termination Kits

NOTE - Kit contains enough parts for two installations.
Facilitates installation of flue exhaust pipe.
Refer to venting tables in this bulletin to determine pipe size needed and proper termination kit required.
See Specifications table and dimension drawings.
2 inch (51 mm) kit contains two stainless steel outside seal caps, two galvanized steel inside seal caps, four seal rings for the caps and 18 inch (457 mm) insulation sleeve for sealing and isolating exhaust piping penetration of wall.

Roof Termination Flashing Kit - Direct or Non-Direct Vent

2 or 3 inch (51 or 76 mm) kit contains two neoprene rubber roof flashings for vertical venting through a roof.
Vent pipe and insulation not furnished. Each kit contains enough parts for two non-direct vent installations.
Also available for use with 1-1/2 inch (use 2 inch flashing) and 2 inch (use 3 inch flashing) Concentric Vent Termination Kits used in vertical venting rooftop applications.

CONDENSATE DRAIN HEAT CABLE KITS

Self-limiting wattage heat cable prevents condensate drain from freezing in unconditioned areas.
Available in 6, 24 or 50 ft. (1.8, 7.3, or 15.2 m) lengths.
Heat Cable Tape:
66 ft. (20 m) length, 1/2 in. (13 mm) wide fiberglass.
60 ft. (18 m) length, 2 in. (51 mm) wide aluminum foil.

CONDENSATE TRAP ALTERNATE LOCATION KIT

Allows condensate drain to be installed on the opposite side of the furnace from the exhaust venting.

SPECIFICATIONS

Gas Heating Performance		Model No.	G41UF-24B-045	G41UF-36B-045	G41UF-36B-070	G41UF-36C-090	G41UF-48C-090
Input - Btuh (kW)			44,000 (12.9)	44,000 (12.9)	66,000 (19.3)	88,000 (25.8)	88,000 (25.8)
Output - Btuh (kW)			40,000 (11.7)	40,000 (11.7)	60,000 (17.6)	80,000 (23.4)	80,000 (23.4)
AFUE ¹			90.0%	90.0%	90.0%	90.0%	90.0%
High static (CSA) - in. w.g. (Pa)			.50 (124)	.50 (124)	.50 (124)	.50 (124)	.50 (124)
Temperature rise range - °F (°C)			35 - 65 (19 - 36)	25 - 55 (14 - 31)	35 - 65 (19 - 36)	50 - 80 (28 - 44)	45 - 75 (25 - 42)
Connections in. (mm)	² Exhaust Pipe (PVC)		2 (51)	2 (51)	2 (51)	2 (51)	2 (51)
	Condensate Drain Trap (PVC pipe) - i.d.		1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
	with field supplied (PVC coupling) - o.d.		3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
	Gas pipe size IPS		1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
Indoor Blower	Wheel nominal diameter x width - in. (mm)		10 x 7 (254 x 178)	10 x 8 (254 x 203)	10 x 8 (254 x 203)	10 x 8 (254 x 203)	10 x 10 (254 x 254)
	Motor output - hp (W)		1/5 (149)	1/3 (249)	1/3 (249)	1/3 (249)	1/2 (373)
	Tons (kW) of add-on cooling		1 - 2 (3.5 - 7.0)	2 - 3 (7.0 - 10.5)	2 - 3 (7.0 - 10.5)	2 - 3 (7.0 - 10.5)	2 - 4 (7.0 - 14.0)
Shipping Data	lbs. (kg) - 1 package		128 (58)	131 (59)	141 (64)	160 (73)	164 (74)
Electrical characteristics		120 volts - 60 hertz - 1 phase (less than 12 amps)					
OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA							
³ Side Return Air Filter & Rack Kit - Number & size of filters		Single 44J22 or Ten Pack 66K63 - (1) 16 x 25 x 1 in. (406 x 635 x 25 mm)					
EZ Filter Base	Catalog Number - Shipping Weight	73P56 - 7 lbs. (3 kg)			73P57 - 8 lbs. (4 kg)		
	Dimensions - H x W x D - in. (mm)	4 x 17-5/8 x 28-5/8 (102 x 448 x 727)			4 x 21-5/8 x 28-5/8 (102 x 549 x 727)		
	Number and size of field provided filter - in. (mm)	16 x 25 x 1 (406 x 635 x 25)			20 x 25 x 1 (508 x 635 x 25)		
Condensate Drain Heat Cable	6 ft. (1.8 m) long	26K68	26K68	26K68	26K68	26K68	
	24 ft. (7.3 m) long	26K69	26K69	26K69	26K69	26K69	
	50 ft. (15.2 m) long	26K70	26K70	26K70	26K70	26K70	
Heat Cable Tape	Fiberglass - 1/2 in. (38 mm) x 66 ft. (20 m)	39G04	39G04	39G04	39G04	39G04	
	Aluminum foil - 2 in. (25 mm) x 60 ft. (18 m)	39G03	39G03	39G03	39G03	39G03	
Condensate Trap Alternate Location Kit		76M20	76M20	76M20	76M20	76M20	
⁴ High Altitude Orifice Kit - Natural Gas		47M82	47M82	47M82	47M82	47M82	
⁵ High Altitude Pressure Switch Kit	4501-7500 ft. (1372-2286 m)	---	---	---	46M94	46M94	
	7501-10,000 ft. (2286-3048 m)	46M94	46M94	46M94	46M94	46M94	
LPG/Propane Kit	0-7500 ft. (0-2286 m)	47M83	47M83	47M83	47M83	47M83	
	7501-10,000 ft. (2286-3048 m)	47M81	47M81	47M81	47M81	47M81	
Return Air Base		RAB-B-6 (76M88)	RAB-B-6 (76M88)	RAB-B-6 (76M88)	RAB-C-6 (74M74)	RAB-C-6 (74M74)	
Roof Termination Flashing Kit		44J41	44J41	44J41	44J41	44J41	
⁶ Termination Kits	Roof - 2 inch (51 mm)	15F75	15F75	15F75	15F75	15F75	
	Wall Ring - 2 inch (51 mm)	15F74	15F74	15F74	15F74	15F74	
Twinning Kit		15L38	15L38	15L38	15L38	15L38	

¹ Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

² Determine from venting tables proper exhaust pipe size and termination kit required.

³ Cleanable polyurethane frame type filter.

⁴ Required for proper operation at altitudes from 7501 to 10,000 ft. (2286 to 3048 m).

⁵ Required for proper operation at altitudes over 4500 ft. (1370 m).

⁶ Kits contain enough parts for two installations.

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

SPECIFICATIONS

Gas Heating Performance	Model No.	G41UF-60C-090	G41UF-48C-110	G41UF-60C-110	G41UF-60D-135
	Input - Btu/h (kW)	88,000 (25.8)	110,000 (32.2)	110,000 (32.2)	132,000 (38.7)
	Output - Btu/h (kW)	80,000 (23.4)	100,000 (29.3)	100,000 (29.3)	120,000 (35.1)
	¹ AFUE	90.0%	90.0%	90.0%	90.0%
	High static (CSA) - in. w.g. (Pa)	.50 (124)	.50 (124)	.50 (124)	.50 (124)
	Temperature rise range - °F (°C)	25 - 55 (14 - 31)	50 - 80 (28 - 44)	40 - 70 (22 - 39)	45 - 75 (25 - 42)
Connections in. (mm)	² Exhaust Pipe (PVC)	2 (51)	2 (51)	2 (51)	2 (51)
	Condensate Drain Trap (PVC pipe) - i.d.	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
	with field supplied (PVC coupling) - o.d.	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
	Gas pipe size IPS	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
Indoor Blower	Wheel nominal diameter x width - in. (mm)	11-1/2 x 10 (292 x 229)	10 x 10 (254 x 254)	11-1/2 x 10 (292 x 229)	11-1/2 x 10 (292 x 229)
	Motor output - hp (W)	3/4 (560)	1/2 (373)	3/4 (560)	3/4 (560)
	Tons (kW) of add-on cooling	4 - 5 (14.0 - 17.5)	2 - 4 (7.0 - 14.0)	4 - 5 (14.0 - 17.5)	4 - 5 (14.0 - 17.5)
Shipping Data	lbs. (kg) - 1 package	168 lbs. (76 kg)	173 lbs. (78 kg)	177 lbs. (80 kg)	194 lbs. (88 kg)
Electrical characteristics	120 volts - 60 hertz - 1 phase (less than 12 amps)				

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

^{3,4} Air Filter and Rack Kit - Number & size of filters	Single 44J22 or Ten Pack 66K63 - (1) 16 x 25 x 1 (406 x 635 x 25)				
EZ Filter Base	Catalog Number - Shipping Weight	73P57 - 8 lbs. (4 kg)		73P58 - 10 lbs. (5 kg)	
	Dimensions - H x W x D	4 x 21-5/8 x 28-5/8 in. (102 x 549 x 727 mm)		4 x 24-5/8 x 28-5/8 in. (102 x 625 x 727 mm)	
	Number and size of field provided filter	20 x 25 x 1 in. (508 x 635 x 25 mm)		24 x 24 x 1 in. (610 x 610 x 25 mm)	
Condensate Drain Heat Cable	6 ft. (1.8 m) long	26K68	26K68	26K68	26K68
	24 ft. (7.3 m) long	26K69	26K69	26K69	26K69
	50 ft. (15.2 m) long	26K70	26K70	26K70	26K70
Heat Cable Tape	Fiberglass - 1/2 in. (38 mm) x 66 ft. (20 m)	39G04	39G04	39G04	39G04
	Aluminum foil - 2 in. (25 mm) x 60 ft. (18 m)	39G03	39G03	39G03	39G03
Condensate Trap Alternate Location Kit		76M20	76M20	76M20	76M20
⁵ High Altitude Orifice Kit - Natural Gas Only		47M82	47M82	47M82	47M82
⁶ High Altitude Pressure Switch Kit	4501-7500 ft. (1372-2286 m)	46M94	46M94	46M94	- - -
	7501-10,000 ft. (2286-3048m)	46M94	46M94	46M94	46M94
RAB Return Air Base		RAB-C-6 (74M74)	RAB-C-6 (74M74)	RAB-C-6 (74M74)	RAB-D-6 (74M75)
LPG/Propane Kit	0-7500 ft. (0-2286 m)	47M83	47M83	47M83	47M83
	7501-10,000ft. (2286-3048m)	47M81	47M81	47M81	47M81
Roof Termination Flashing Kit		44J41	44J41	44J41	44J41
⁷ Termination Kits	Roof - 2 inch (51 mm)	15F75	15F75	15F75	15F75
	Wall Ring - 2 inch (51 mm)	15F74	15F74	15F74	15F74
Twining Kit		15L38	15L38	15L38	15L38

¹ Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

² Determine from venting tables proper exhaust pipe size and termination kit required.

³ Cleanable polyurethane frame type filter.

⁴ Not for use with RAB Return Air Base or with 60C and 60D size units with air flow requirements of 1800 cfm (850 L/s) or greater. See Blower Performance tables for additional information.

⁵ Required for proper operation at altitudes from 7501 to 10,000 ft. (2286 to 3048 m).

⁶ Required for proper operation at altitudes over 4500 ft. (1370 m).

⁷ Kits contain enough parts for two installations.

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

INSTALLATION CLEARANCES

Sides	1 0 inches (0 mm)
Rear	0 inches (0 mm)
Top/Plenum	1 inch (25 mm)
Front	3 inches (76 mm)
Front (service/alcove)	24 inches (610 mm)
Floor	² Combustible

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.

¹ Allow proper clearances to accommodate condensate trap and vent pipe installation.

² Do not install the furnace directly on carpeting, tile, or other combustible materials other than wood flooring.

EXHAUST PIPE VENTING TABLE

Altitude	Model No.	Maximum Equivalent Vent Length - ft. (m)				
		G41UF-24B-045 G41UF-36B-045	G41UF-36B-070	G41UF-36C-090 G41UF-48C-090 G41UF-60C-090	G41UF-48C-110 G41UF-60C-110	¹ G41UF-60D-135
0 - 4500 ft. (0 - 1371 m)	1-1/2 in. diameter	65 (19.8)	---	---	---	---
	2 in. diameter	130 (39.6)	100 (30.5)	55 (16.8)	25 (7.6)	15 (4.6)
	3 in. diameter	130 (39.6)	130 (39.6)	130 (39.6)	130 (39.6)	80 (24.4)
4501-7500 ft. (1372-2286 m)	1-1/2 in. diameter	65 (19.8)	---	---	---	---
	2 in. diameter	130 (39.6)	100 (30.5)	35 (10.7)	25 (7.6)	15 (4.6)
	3 in. diameter	130 (39.6)	130 (39.6)	130 (39.6)	130 (39.6)	80 (24.4)
7501 - 10,000 ft. (2286.3 - 3048 m)	1-1/2 in. diameter	65 (19.8)	---	---	---	---
	2 in. diameter	130 (39.6)	100 (30.5)	25 (7.6)	---	---
	3 in. diameter	130 (39.6)	130 (39.6)	100 (30.5)	100 (30.5)	75 (22.9)

NOTE - Minimum Equivalent Vent Pipe length is 15 feet (4.6 m) [5 ft. (1.5 m) + 2 elbows].

¹ 135 models must have the supplied 90° street ell installed directly into the unit flue collar. The street ell must be included in the elbow count.

VENTING NOTES — One 90° elbow is equivalent to 5 feet (1.5 m) of straight vent pipe.

Two 45° elbows are equal to one 90° elbow.

One 45° elbow is equivalent to 2.5 feet (762 mm) of straight vent pipe.

One foot (305 mm) length of 2 in. (51 mm) diameter pipe is equivalent to 8 feet (2.4 m) of 3 in. (76 mm) diameter pipe.

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.

FUEL	Manifold Pressure (Outlet) in. w.g. (kPa)			
	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)	10.0 (2.49)	10.0 (2.49)	10.0 (2.49)

Pressure switch is factory set. No adjustment is necessary.

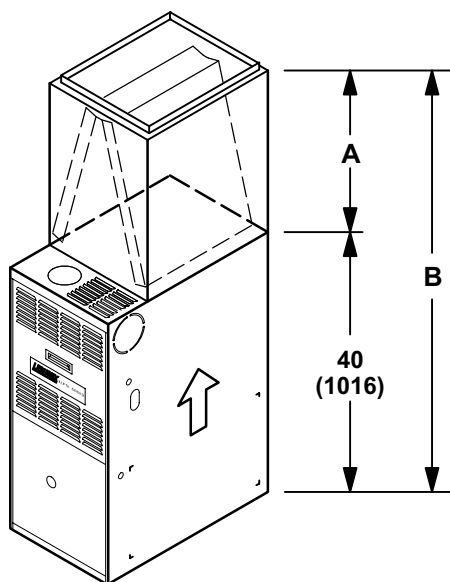
All models use the factory installed pressure switch from 0-4500 feet (0-1370 m).

-090 and -110 models require a High Altitude Pressure Switch Kit if installed at altitudes above 4500 feet (1372 m).

All models require a High Altitude Pressure Switch Kit and all natural gas models require a High Altitude Orifice Kit at altitudes of 7501-10,000 feet (2286-3048 m).

See Specifications table for ordering information.

DIMENSIONS - INCHES (MM) - FURNACE/COIL COMBINATIONS



Model No.	A		B	
	in.	mm	in.	mm
Uncased				
C33-24B-2	13-7/8	352	53-7/8	1368
C33-30B-2	17-3/4	451	57-3/4	1467
C33-48B-2	22-1/8	562	62-1/8	1578
C33-36B-2, C33-42B-2	21-7/8	556	61-7/8	1572
C33-24C-2, C33-30C-2, C33-36C-2	21-1/4	540	61-1/4	1556
C33-38B-2	22	559	62	1575
C33-44C-2, C33-48C-2	21-1/2	546	61-1/2	1562
C33-50/60C-2, C33-60D-2	24-3/4	629	64-3/4	1645
C33-62D-2	28-3/4	730	68-3/4	1746
Cased				
C33-24B-2F, CX34-18/24B-6F	16-1/2	419	56-1/2	1435
C33-30B-2F, CX34-30B-6F	20-1/2	521	60-1/2	1537
C33-24C-2F, C33-30C-2F, C33-36B-2F, C33-36C-2F, C33-38B-2F, C33-42B-2F, C33-44C-2F, C33-48B-2F, C33-48C-2F, CX34-18/24C-6F, CX34-30C-6F, CX34-36B-6F, CX34-36C-6F, CX34-38B-6F, CX34-42B-6F, CX34-44/48C-6F, CX34-44/48B-6F	24-1/2	622	64-1/2	1638
C33-50/60C-2F, CX34-50/60C-6F	27-1/2	699	67-1/2	1715
C33-60D-2F, CX34-60D-6F	25-1/2	648	65-1/2	1664
C33-62D-2F, CX34-62D-6F	29-1/2	749	69-1/2	1765

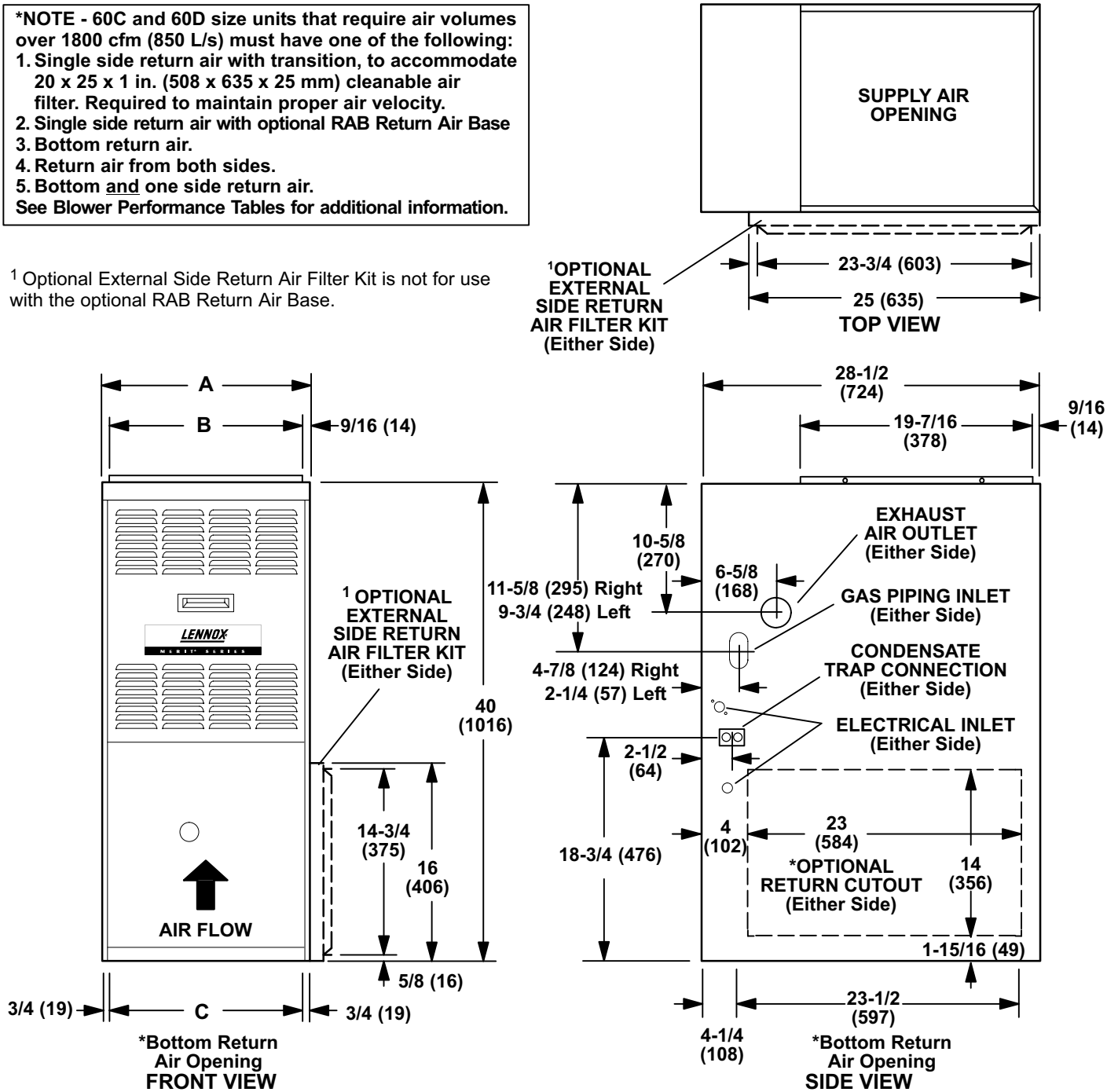
DIMENSIONS - INCHES (MM)

***NOTE - 60C and 60D size units that require air volumes over 1800 cfm (850 L/s) must have one of the following:**

1. Single side return air with transition, to accommodate 20 x 25 x 1 in. (508 x 635 x 25 mm) cleanable air filter. Required to maintain proper air velocity.
2. Single side return air with optional RAB Return Air Base
3. Bottom return air.
4. Return air from both sides.
5. Bottom and one side return air.

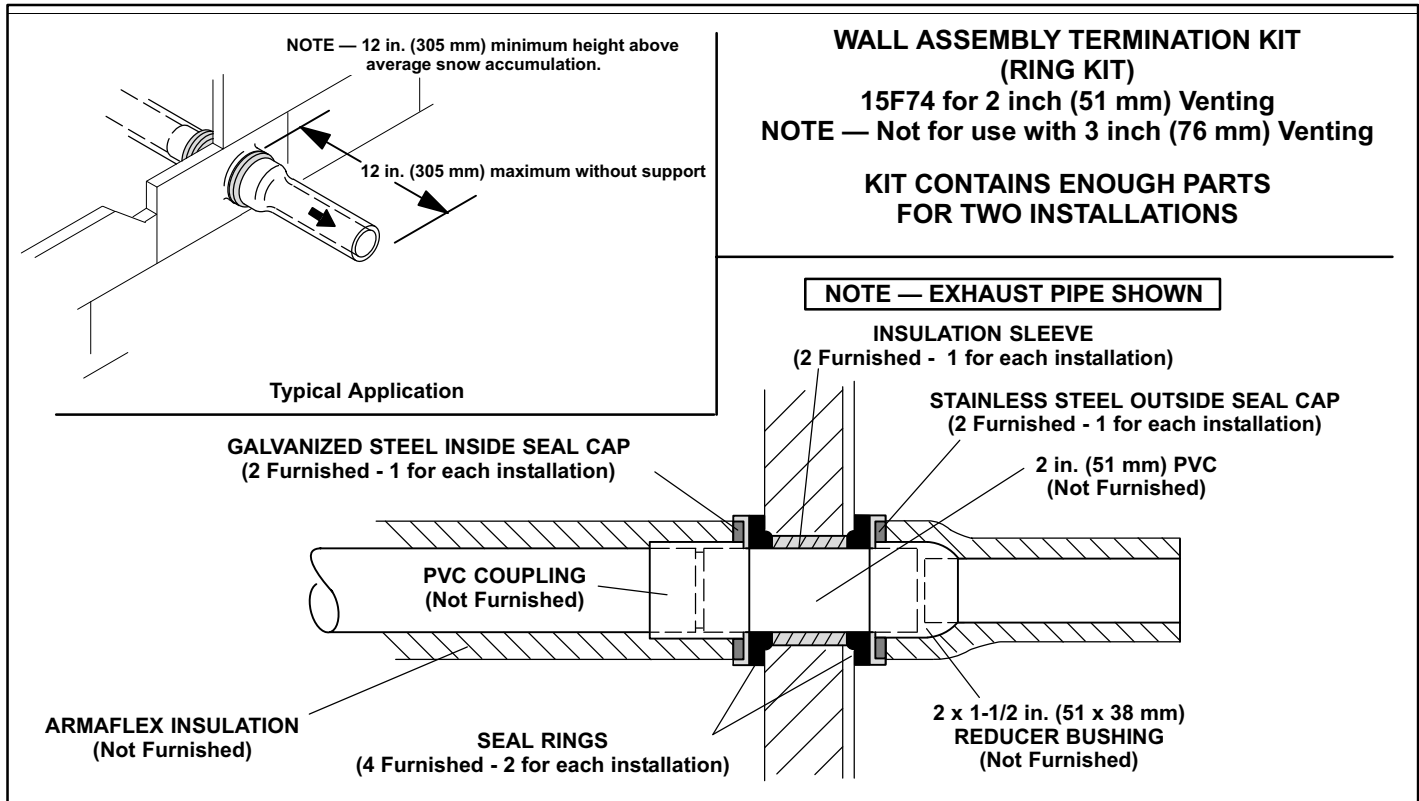
See Blower Performance Tables for additional information.

¹ Optional External Side Return Air Filter Kit is not for use with the optional RAB Return Air Base.



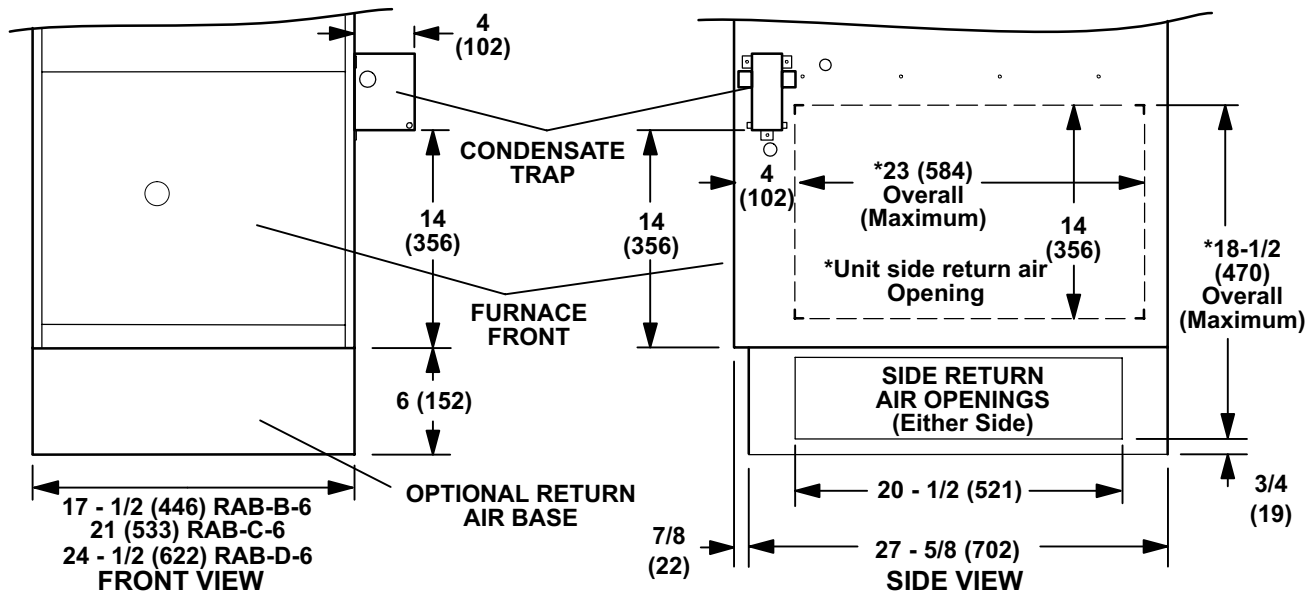
Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
G41UF-24B-045 G41UF-36B-045 G41UF-36B-070	17-1/2	446	16-3/8	416	16	406
G41UF-36C-090 G41UF-48C-090 G41UF-60C-090 G41UF-48C-110 G41UF-60C-110	21	533	19-7/8	454	19-1/2	495
G41UF-60D-135	24-1/2	622	23-3/8	546	23	584

OPTIONAL ACCESSORY DIMENSIONS - INCHES (MM)



RAB RETURN AIR BASE

For use with B, C, and D size furnaces only



NOTE- Optional Side Return Air Filter Kits are not for use with RAB Return Air Base.

* Both the unit return air opening and the base return air opening must be covered by a single plenum or IAQ cabinet. Minimum unit side return air opening dimensions for units requiring 1800 cfm or more of air: 23 (584) W X 11 (279) H. The opening can be cut as needed to accommodate plenum or IAQ cabinet.

Side return air openings must be cut in the field. There are cutting guides stenciled on the cabinet for the side return air opening. The size of the opening must not extend beyond the markings on the furnace cabinet.

BLOWER/WATTS DATA

G41UF-24B-045 PERFORMANCE (Less Filter)

External Static Pressure		Air Volume / Watts at Different Blower Speeds								
in. w.g.	Pa	High			Medium			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	1225	580	485	1000	470	365	820	385	290
0.10	25	1190	560	455	990	470	355	815	385	275
0.20	50	1160	545	435	970	460	340	805	380	265
0.30	75	1120	530	415	945	445	325	780	365	260
0.40	100	1070	505	395	910	430	305	755	355	245
0.50	125	1015	480	375	865	405	295	740	350	240
0.60	150	955	450	355	835	395	285	695	325	225
0.70	175	885	415	335	750	355	260	640	300	210
0.80	200	825	390	320	695	330	245	545	255	185
0.90	225	715	335	300	600	285	220	435	205	170

NOTES - All air data is measured external to unit without filter (not furnished - field provided).
Air volume based on bottom air return air. Actual air volume may vary on side return air applications.

G41UF-36B-045 PERFORMANCE (Less Filter)

External Static Pressure		Air Volume / Watts at Different Blower Speeds											
in. w.g.	Pa	High			Medium-High			Medium-Low			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	25	1555	735	630	1410	665	585	1190	560	520	1030	485	435
0.10	25	1515	715	605	1385	655	555	1190	560	485	1020	480	415
0.20	50	1470	695	580	1345	635	520	1170	550	455	1010	475	400
0.30	75	1410	665	555	1310	620	495	1155	545	440	1000	470	385
0.40	100	1350	640	535	1250	590	465	1120	530	410	980	465	360
0.50	125	1290	610	505	1205	570	450	1080	510	390	950	450	345
0.60	150	1220	575	485	1145	540	420	1020	480	365	905	430	320
0.70	175	1145	540	460	1080	510	400	975	460	345	860	405	300
0.80	200	1050	495	425	985	465	365	870	410	320	785	370	285
0.90	225	945	445	410	900	425	345	825	390	305	730	345	270

NOTES - All air data is measured external to unit without filter (not furnished - field provided).
Air volume based on bottom air return air. Actual air volume may vary on side return air applications.

G41UF-36B-070 PERFORMANCE (Less Filter)

External Static Pressure		Air Volume / Watts at Different Blower Speeds											
in. w.g.	Pa	High			Medium-High			Medium-Low			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	1640	775	660	1415	665	575	1160	545	485	1005	475	410
0.10	25	1600	755	635	1395	660	550	1160	545	460	1000	470	385
0.20	50	1540	725	605	1370	650	525	1160	545	445	995	470	375
0.30	75	1495	705	580	1345	635	505	1145	540	425	990	465	365
0.40	100	1420	670	545	1275	605	480	1125	530	395	965	455	345
0.50	125	1360	640	525	1245	590	450	1080	510	375	945	445	325
0.60	150	1275	600	490	1165	550	410	1025	485	350	900	425	305
0.70	175	1170	555	465	1085	515	385	965	430	335	860	405	295
0.80	200	1080	510	440	1010	475	360	865	410	310	775	365	270
0.90	225	945	445	400	840	395	320	765	360	275	710	335	245

NOTES - All air data is measured external to unit without filter (not furnished - field provided).
Air volume based on bottom air return air. Actual air volume may vary on side return air applications.

G41UF-36C-090 PERFORMANCE (Less Filter)

External Static Pressure		Air Volume / Watts at Different Blower Speeds											
in. w.g.	Pa	High			Medium-High			Medium-Low			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	1705	805	730	1395	660	605	1195	555	495	1010	475	410
0.10	25	1680	795	700	1390	650	585	1185	560	480	1005	475	395
0.20	50	1645	775	675	1380	650	560	1175	555	465	1000	470	390
0.30	75	1600	755	635	1365	645	535	1165	550	445	995	470	375
0.40	100	1560	735	615	1345	635	515	1155	545	425	990	465	360
0.50	125	1495	705	580	1305	615	500	1125	530	400	970	460	345
0.60	150	1415	665	540	1270	600	475	1080	510	375	940	445	320
0.70	175	1330	630	505	1205	570	435	1035	490	360	890	420	300
0.80	200	1255	590	485	1120	530	400	955	450	330	840	395	280
0.90	225	1135	535	450	1020	480	365	830	390	300	760	360	260

NOTES - All air data is measured external to unit without filter (not furnished - field provided).
Air volume based on bottom air return air. Actual air volume may vary on side return air applications.

BLOWER/WATTS DATA

G41UF-48C-090 PERFORMANCE (Less Filter)

External Static Pressure		Air Volume / Watts at Different Blower Speeds											
in. w.g.	Pa	High			Medium-High			Medium-Low			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2180	1030	930	1835	865	790	1520	715	630	1280	605	510
0.10	25	2135	1005	885	1825	860	750	1510	710	610	1275	600	495
0.20	50	2085	985	840	1810	855	720	1505	710	580	1270	600	475
0.30	75	2030	955	800	1775	835	685	1500	705	565	1265	595	460
0.40	100	1940	915	760	1735	820	650	1480	700	535	1250	590	440
0.50	125	1865	880	725	1660	785	600	1430	675	505	1215	575	425
0.60	150	1740	820	670	1590	750	575	1380	650	475	1175	555	410
0.70	175	1645	775	640	1475	695	520	1290	610	450	1105	520	375
0.80	200	1540	725	600	1340	630	465	1175	555	405	1020	480	355
0.90	225	1335	630	540	1170	555	440	1070	505	375	950	450	330

NOTES - All air data is measured external to unit without filter (not furnished - field provided).
Air volume based on bottom air return air. Actual air volume may vary on side return air applications.

G41UF-48C-110 PERFORMANCE (Less Filter)

External Static Pressure		Air Volume / Watts at Different Blower Speeds											
in. w.g.	Pa	High			Medium-High			Medium-Low			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2160	1020	880	1880	890	755	1490	705	602	1235	580	485
0.10	25	2100	990	850	1855	875	730	1480	700	585	1230	580	475
0.20	50	2035	960	805	1815	860	690	1475	695	560	1225	580	460
0.30	75	1965	925	750	1755	830	650	1475	695	545	1220	575	445
0.40	100	1885	890	725	1715	810	625	1465	690	510	1215	575	430
0.50	125	1780	840	680	1630	770	580	1420	670	490	1150	540	400
0.60	150	1690	800	660	1550	735	550	1360	640	460	1110	525	380
0.70	175	1575	745	620	1410	665	505	1210	570	405	1035	490	350
0.80	200	1375	650	550	1230	580	450	1125	530	380	970	460	325
0.90	225	1225	580	520	1120	530	415	1050	495	365	885	420	310

NOTES - All air data is measured external to unit without filter (not furnished - field provided).
Air volume based on bottom air return air. Actual air volume may vary on side return air applications.

G41UF-60C-090 PERFORMANCE (Less Filter) - Single Side Return Air - Air volumes in bold require field fabricated transition to accommodate 20 x 25 x 1 in. (508 x 635 x 25 mm) cleanable air filter in order to maintain proper air velocity.

External Static Pressure		Air Volume / Watts at Different Blower Speeds											
in. w.g.	Pa	High			Medium-High			Medium-Low			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2510	1185	1160	2350	1110	990	2145	1010	850	1785	845	670
0.10	25	2460	1160	1145	2310	1090	970	2095	990	825	1780	840	660
0.20	50	2395	1130	1125	2240	1060	940	2060	970	805	1760	830	650
0.30	75	2325	1095	1090	2175	1025	910	2015	950	775	1735	820	630
0.40	100	2225	1050	1050	2110	995	880	1950	920	745	1720	810	620
0.50	125	2135	1010	1015	2050	965	855	1900	895	725	1665	785	600
0.60	150	2025	955	975	1950	920	820	1820	860	700	1600	755	575
0.70	175	1950	920	950	1865	880	790	1750	825	675	1535	725	555
0.80	200	1845	870	915	1760	830	755	1640	775	650	1450	685	530
0.90	225	1730	815	885	1640	775	720	1555	735	625	1340	630	510

NOTES - All air data is measured external to unit without filter (not furnished - field provided).

G41UF-60C-090 PERFORMANCE (Less Filter) - Bottom Return Air, Side Return Air with Optional RAB Return Air Base, Return Air from Both Sides or Return Air from Bottom and One Side.

External Static Pressure		Air Volume / Watts at Different Blower Speeds											
in. w.g.	Pa	High			Medium-High			Medium-Low			Low		
		cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts	cfm	L/s	Watts
0.00	0	2575	1215	1235	2360	1115	1030	2050	965	875	1790	845	720
0.10	25	2525	1195	1210	2320	1095	1010	2040	960	855	1775	835	710
0.20	50	2450	1155	1170	2270	1070	985	2025	955	840	1755	830	695
0.30	75	2375	1120	1140	2215	1045	955	1995	940	815	1740	820	680
0.40	100	2300	1085	1125	2155	1020	930	1970	930	800	1720	815	665
0.50	125	2210	1045	1075	2090	985	900	1915	905	775	1700	800	650
0.60	150	2140	1010	1030	2055	970	895	1875	885	755	1665	785	635
0.70	175	2080	980	1035	1975	935	865	1805	855	730	1610	760	615
0.80	200	2000	945	1010	1890	890	830	1730	815	705	1565	740	595
0.90	225	1905	900	970	1785	845	800	1640	775	675	1495	705	570

NOTES - All air data is measured external to unit without filter (not furnished - field provided).

BLOWER/WATTS DATA

G41UF-60C-110 PERFORMANCE (Less Filter) - Single Side Return Air - Air volumes in bold require field fabricated transition to accommodate 20 x 25 x 1 in. (508 x 635 x 25 mm) cleanable air filter in order to maintain proper air velocity.

External Static Pressure		Air Volume / Watts at Different 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	2550	1205	1300	2345	1105	1080	2055	970	895	1740	820	715
0.10	25	2500	1180	1270	2280	1075	1050	2025	950	855	1730	815	720
0.20	50	2410	1140	1225	2220	1050	1000	2000	945	840	1715	810	695
0.30	75	2350	1110	1190	2175	1025	965	1945	920	805	1690	795	670
0.40	100	2280	1075	1170	2115	995	940	1910	900	790	1675	790	680
0.50	125	2195	1035	1115	2035	960	910	1840	870	760	1630	770	650
0.60	150	2075	980	1065	1955	925	875	1785	845	735	1585	750	630
0.70	175	1980	935	1030	1860	880	845	1705	805	700	1540	725	605
0.80	200	1895	895	1005	1770	835	810	1615	765	675	1475	695	580
0.90	225	1770	835	975	1640	775	770	1535	725	645	1415	670	565

NOTES - All air data is measured external to unit without filter (not furnished - field provided).

G41UF-60C-110 PERFORMANCE (Less Filter) - Bottom Return Air, Side Return Air with Optional RAB Return Air Base, Return Air from Both Sides or Return Air from Bottom and One Side.

External Static Pressure		Air Volume / Watts at Different 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	2580	1215	1340	2330	1100	1100	2045	965	950	1760	830	745
0.10	25	2515	1190	1295	2295	1085	1075	2040	960	880	1740	820	745
0.20	50	2450	1155	1255	2255	1065	1040	2005	945	855	1735	820	730
0.30	75	2375	1120	1225	2200	1040	1015	1965	925	835	1715	810	710
0.40	100	2310	1090	1190	2145	1010	975	1925	910	815	1690	800	695
0.50	125	2200	1040	1135	2085	985	955	1870	880	780	1660	785	670
0.60	150	2130	1005	1105	2025	955	930	1825	860	770	1600	755	650
0.70	175	2045	965	1065	1930	910	890	1750	825	730	1575	745	625
0.80	200	1930	910	1025	1825	860	850	1650	780	695	1500	710	600
0.90	225	1820	860	980	1730	815	815	1555	735	660	1430	675	580

NOTES - All air data is measured external to unit without filter (not furnished - field provided).

G41UF-60D-135 PERFORMANCE (Less Filter) - Single Side Return Air - Air volumes in bold require field fabricated transition to accommodate 20 x 25 x 1 in. (508 x 635 x 25 mm) cleanable air filter in order to maintain proper air velocity.

External Static Pressure		Air Volume / Watts at Different 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	2550	1205	1340	2330	1100	1145	2035	960	955	1725	815	775
0.10	25	2490	1175	1305	2275	1075	1100	2025	955	900	1720	810	755
0.20	50	2430	1145	1285	2230	1050	1065	1990	940	890	1715	810	740
0.30	75	2355	1110	1235	2180	1030	1035	1955	920	855	1700	800	715
0.40	100	2285	1080	1210	2140	1010	1010	1910	900	830	1680	790	700
0.50	125	2200	1040	1160	2070	975	980	1865	880	805	1645	775	675
0.60	150	2100	990	1110	1985	935	935	1815	855	780	1600	755	660
0.70	175	2010	950	1075	1915	905	910	1740	820	740	1545	730	630
0.80	200	1910	900	1050	1845	870	875	1670	790	720	1490	705	605
0.90	225	1815	855	1005	1735	820	835	1605	755	690	1420	670	580

NOTES - All air data is measured external to unit without filter (not furnished - field provided).

G41UF-60D-135 PERFORMANCE (Less Filter) - Bottom Return Air, Side Return Air with Optional RAB Return Air Base, Return Air from Both Sides or Return Air from Bottom and One Side.

External Static Pressure		Air Volume / Watts at Different 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	2585	1220	1370	2355	1110	1160	2075	980	985	1730	820	765
0.10	25	2530	1195	1335	2330	1100	1120	2075	980	945	1730	820	750
0.20	50	2475	1170	1300	2295	1085	1090	2050	970	920	1730	815	745
0.30	75	2410	1135	1260	2230	1050	1060	2010	950	890	1715	810	725
0.40	100	2355	1110	1230	2185	1030	1040	1975	930	865	1680	795	695
0.50	125	2275	1075	1190	2120	1000	995	1915	905	830	1650	780	685
0.60	150	2190	1035	1155	2045	965	960	1850	875	805	1615	765	660
0.70	175	2100	990	1125	1955	925	930	1785	840	780	1550	730	635
0.80	200	1995	945	1080	1855	875	890	1715	810	745	1500	710	615
0.90	225	1860	880	1020	1750	825	835	1635	770	720	1425	670	580