LENNOX

ENGINEERING DATA

ACCESSORIES

HC-EAC

HEALTHY CLIMATE®

ELECTRONIC AIR CLEANER

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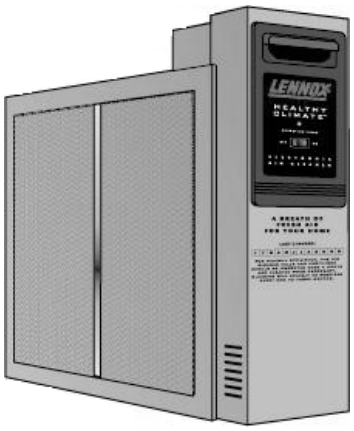
UL® LISTED



HEALTHY CLIMATE® SOLUTIONS™

FEATURES

Application

- Removes up to 90% of all airborne particles passing through it as opposed to 10% efficiency of an ordinary filter.
- Provides a high degree of cleaning without excessive pressure drop.
- Air cleaners are rated according to ASHRAE Standard 52-76.
- Shipped completely factory assembled and wired.
- Applicable to all types of central units — up-flow, lo-boy, horizontal or down-flow models, may be installed in a vertical or horizontal position adjacent to the unit or remote in the duct.
- Compact enough for easy installation yet rugged enough to support the weight of most up-flow furnaces.
- Equipped with two matched aluminum and stainless steel cells.
- Constant blower operation achieves the best air cleaning results as well as temperatures remaining balanced throughout the conditioned area.
- Power supply and air flow sensor have been stringently life cycle tested to assure long life.

Warranty

- Air cleaner has a five year limited warranty.
- Refer to complete statement of warranty included with unit.

Installation Guidelines

- Designed for installation in the return air side of a forced air heating or heating-cooling system.
- Allow a minimum of 15 in. (381 mm) clearance in front of access door and 12 in. (305 mm) clear space above wiring junction box for service access.
- 40°F to 85°F (4°C to 29°C) entering air temperature is recommended for air cleaner installations. Do not install in the supply air duct downstream from the heating source where high temperatures would be encountered.
- 100% outdoor air should not be permitted to pass through the air cleaner.
- Install upstream from the humidifier as high humidity effects efficiency.

Solid-State Power Supply/Access Door

- Access door can be easily removed from the air cleaner for servicing as required. When removed, power is automatically disconnected to the cells, eliminating the possibility of electrical shock when servicing.
- Solid-state power supply is mounted internal to the access door and is easily removed for service.
- All high voltage components are self-enclosed for added protection.
- Electrical components are potted in dielectric epoxy resin to protect them from breakdown caused by heat and humidity.
- Integral solid-state air flow monitor switch automatically cycles the unit on/off with the system blower.
- “On-Off” switch with performance indicator light for easy check of unit operation. When control switch is “On” and blower is operating, light will glow indicating proper electrical operation. If the light is not on when system blower is operating, service is required, see installation manual for troubleshooting guide.
- Service features include: built-in protection against arcing, short circuit or open circuit conditions, surge resistor to protect internal components, color coded wiring and push-on terminal connections.

Wiring Junction Box

- Junction box is located on top of air cleaner.
- Electrical inlets are located on both sides and back
- Box is constructed of heavy gauge steel.

Cabinet

- Thin profile design allows installation in minimum space.
- Cabinet can be installed in vertical or horizontal position.
- One-piece cabinet is constructed of heavy gauge cold-rolled steel with a durable baked epoxy powder coating paint finish.
- Predrilled mounting holes and bendable tabs on each side of cabinet simplifies flush mounting to unit or duct work.
- Factory applied cleaning reminder label with magnet furnished.

NOTE - Due to Lennox' ongoing committment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability.

FEATURES (CONTINUED)

Twin Collecting Cells

- Long life tungsten wires carry high voltage DC to set up a solid ionizing screen which places a positive charge on all particles entering the cells.
- Particles then pass into the collection plate section where alternately charged plates attract and hold them until they are removed by cleaning.
- Constructed of lightweight aluminum and stainless steel.
- 5 in. (127 mm) deep with wide plate spacing to minimize arcing and provide greater dirt holding capacity.
- Spring loaded contacts between cells and power supply assure positive power connection.
- Glazed porcelain insulators are practically out of the air stream to prevent dirt build-up and make cleaning easier.
- Easily removed for cleaning.

Protective Dual Pre-Filters

- Lightweight aluminum mesh filters serve as a protective screen in stopping large amounts of dust, animal hair, insects and lint from entering electronic cell, thereby preventing clogging and minimizing arcing.
- Easily removed for periodic cleaning.
- Must be installed upstream from the electronic cells.

OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA

Charcoal Filters

- Filter out disagreeable odors such as cigarette and cigar smoke, cooking odors, etc.
- Charcoal filters are installed on the opposite side of the unit from the pre-filters for maximum efficiency
- See Specifications table for catalog no.

SPECIFICATIONS

Model No.		HC-EAC-1400	HC-EAC-2000
Air volume range — cfm (L/s)		800-1600 (380-755)	1400-2200 (660-1040)
Max. pressure drop - in. w.g. (Pa)		.08 (20)	.09 (22)
Electronic Cell	No. & size - in. (mm)	(2) 13 x 16 x 5 (330 x 406 x 127)	(2) 13 x 20 x 5 (330 x 508 x 127)
	Weight	9 lbs. (4 kg) each	11 lbs (5 kg) each
Pre-filter no. & size - in. (mm)		(2) 13 x 16 x 5/16 (330 x 406 x 8)	(2) 13 x 20 x 5/16 (330 x 508 x 8)
Duct opening W x H	in.	23-5/8 x 13-9/16	23-5/8 x 17-3/4
	mm	600 x 344	600 x 451
Electrical characteristics		120 volts — 60 hertz — 1 phase	
Power consumption		40 watts maximum	
Shipping weight - lbs. (kg)		44 (20)	48 (22)
OPTIONAL ACCESSORIES - MUST BE ORDERED EXTRA			
[1] Charcoal Filters		**69H98**	**72H09**

[1] Two filters are required and furnished per catalog number.

AIR RESISTANCE

Air Volume		Total Resistance			
		HC-EAC-1400		HC-EAC-2000	
cfm	L/s	in. wg.	Pa	in. wg.	Pa
800	380	.02	5	- - - -	- - - -
1000	470	.05	12	- - - -	- - - -
1200	565	.07	17	- - - -	- - - -
1400	660	.09	22	.03	7
1600	755	.12	30	.05	12
1800	850	- - - -	- - - -	.07	17
2000	945	- - - -	- - - -	.08	20
2200	1040	- - - -	- - - -	.10	25

NOTE — Standard central system filter is removed and not included in table.

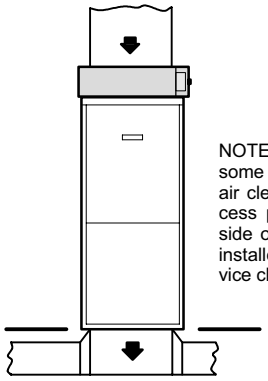
AIR CLEANING EFFICIENCY

On the average, an electronic air cleaner will remove fifteen (15) times as much dust, dirt, lint and mold spores from the air as an ordinary furnace filter. And, on smaller particles, the percentage removed vs. standard filters is significantly greater.
An electronic air cleaner will remove airborne particles as small as 0.01 microns in diameter. The chart below lists sizes of common airborne particles trapped and removed from recirculated air by electronic air cleaners.

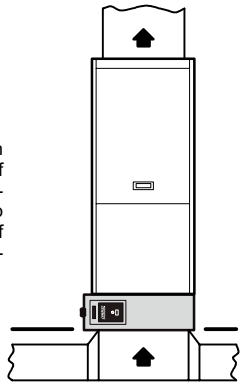
Types of Airborne Particles	Particle Size - *Microns
Pollen	10.0 to 100.0
Tobacco Smoke	0.01 to 1.0
Cooking Smoke	0.02 to 1.0
Household Dust	0.01 to 300.0
Mold Spores	10.0 to 30.0
Atmospheric Dust	0.01 to 1.0
Insecticide Dust	0.40 to 10.0
Coal Dust (Soot)	1.0 to 100.0

*One micron = 1/25,400th of an inch.
Particles 10 microns and larger are visible to the naked eye.
Particles 10 to 0.1 microns are visible with microscope.
Particles below 0.1 microns are visible with electron microscope.

TYPICAL APPLICATIONS

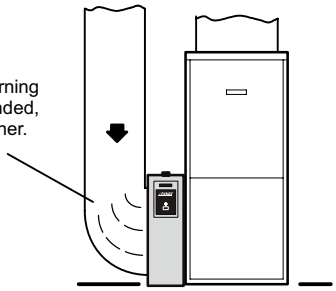


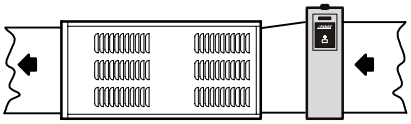
Down-Flow
NOTE — Due to flue location on some down-flow furnaces, front of air cleaner (with controls and access panel) must be installed to side or rear of furnace cabinet. If installed in a confined space, service clearance may be restricted.



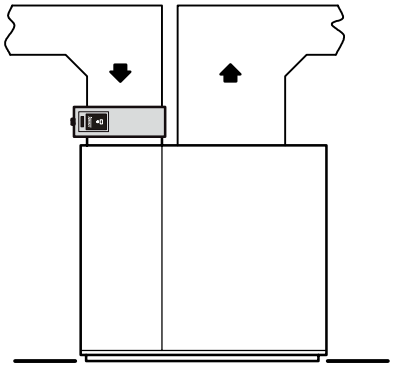
Up-Flow

Up-Flow
(Side Installation)
NOTE — At sharp turns, turning vanes are recommended, installed before the air cleaner.



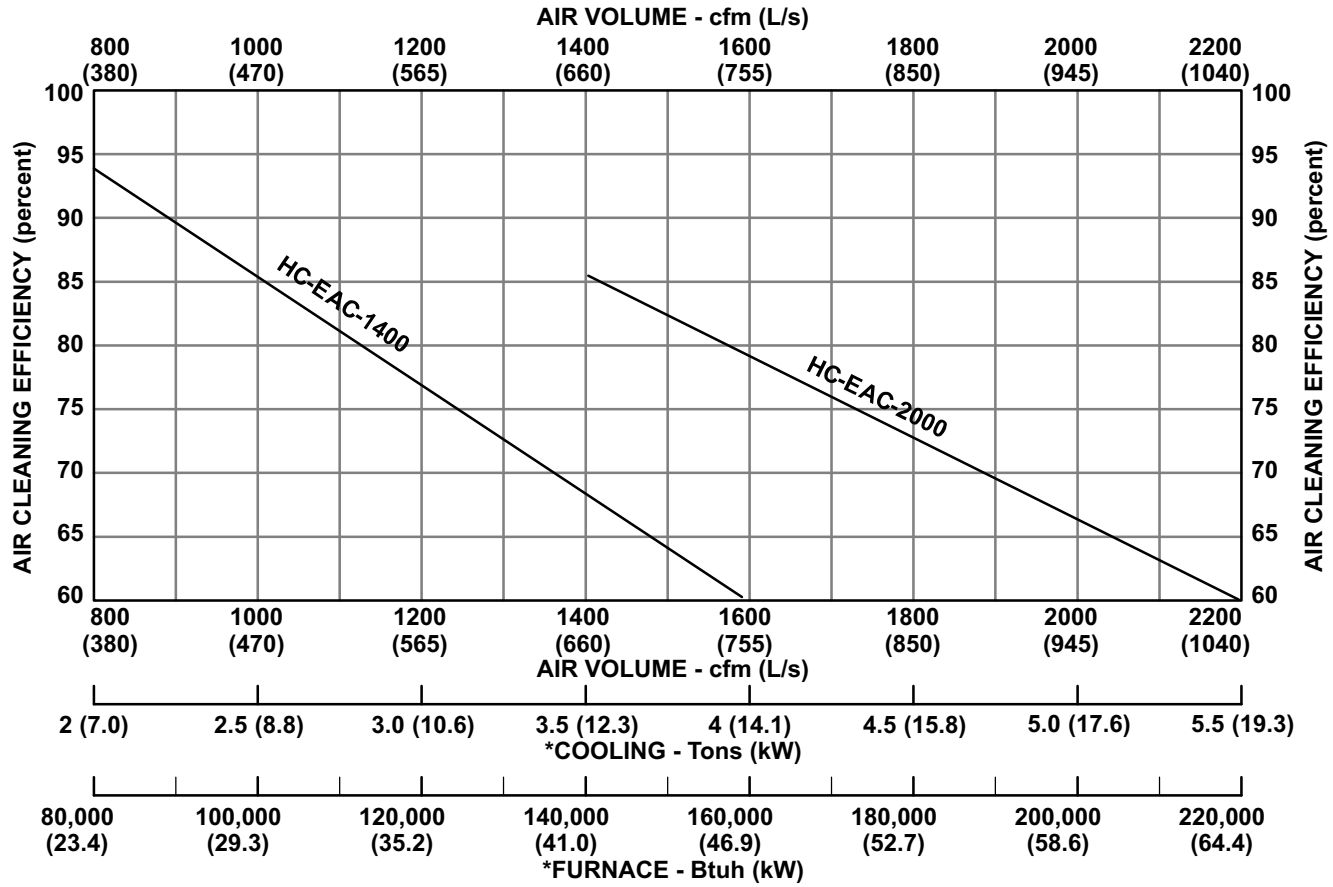


Horizontal



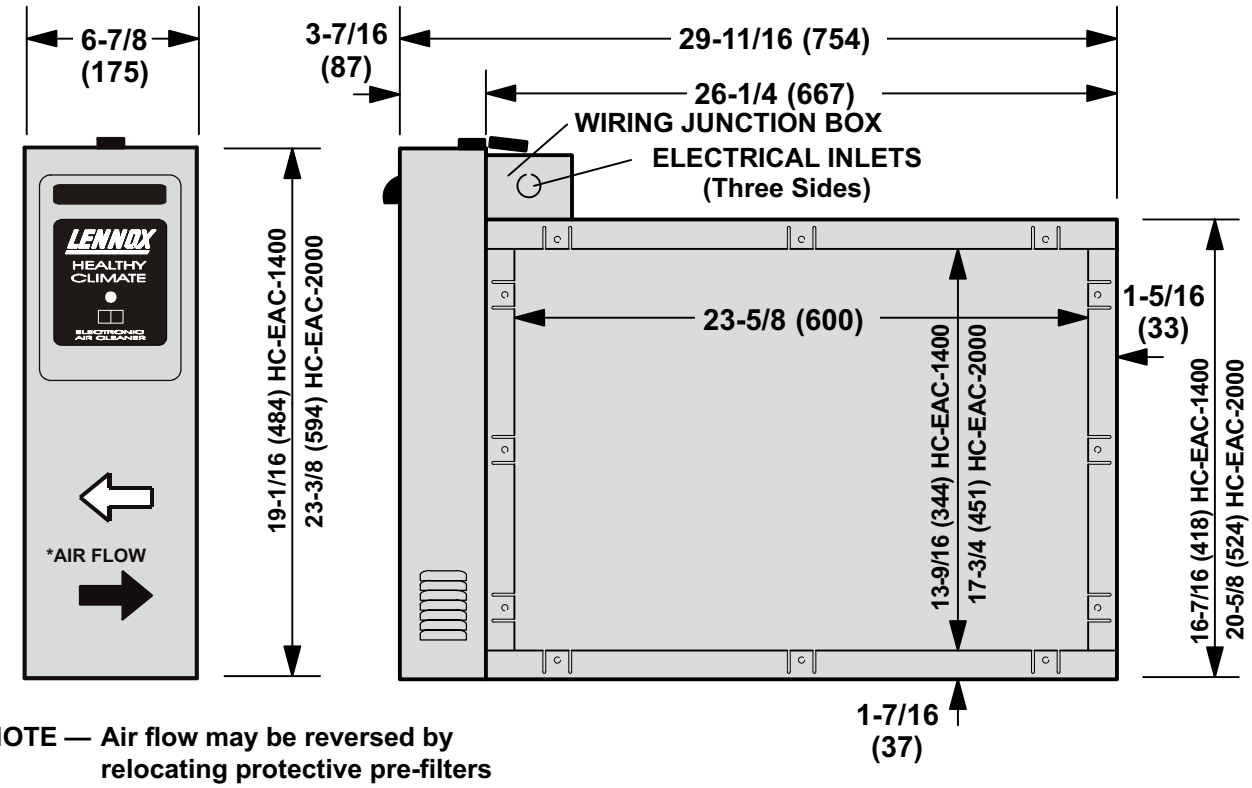
Lo-Boy

AIR CLEANING EFFICIENCY



*Ratings based on methods prescribed by American Society of Heating, Refrigerating, and Air Conditioning Engineers - (ASHRAE) standard 52-76 using atmospheric air without the addition of artificial dust.

DIMENSIONS - IN. (MM)



***NOTE — Air flow may be reversed by relocating protective pre-filters and electronic cells.**