

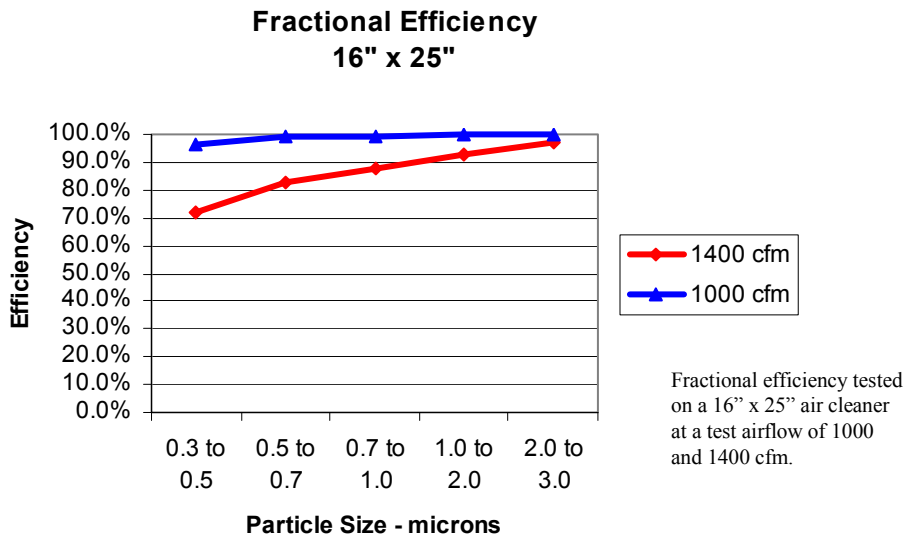
Honeywell Electronic Air Cleaners and variable speed air handlers: a winning combination

Easy application, superior performance

The use of multi-stage furnaces and variable speed air handlers in the residential HVAC market has increased dramatically. This equipment offers numerous advantages for homeowners, including energy savings, quiet operation and easier application of zoning.

But that's not all. The use of variable speed air handlers can also improve the performance of the home's filtration system if an electronic air cleaner is installed.

Here's why: An electronic air cleaner relies on the electrostatic attraction between the particles charged by the ionizing section, and the oppositely charged collector plates. When a variable speed air handler operates at a slower speed, particles spend more time in the electronic air cleaner's collector section, increasing the likelihood of being captured. The difference is significant - the collection efficiency is increased to well over 90% - even down to 0.3 micron particles.

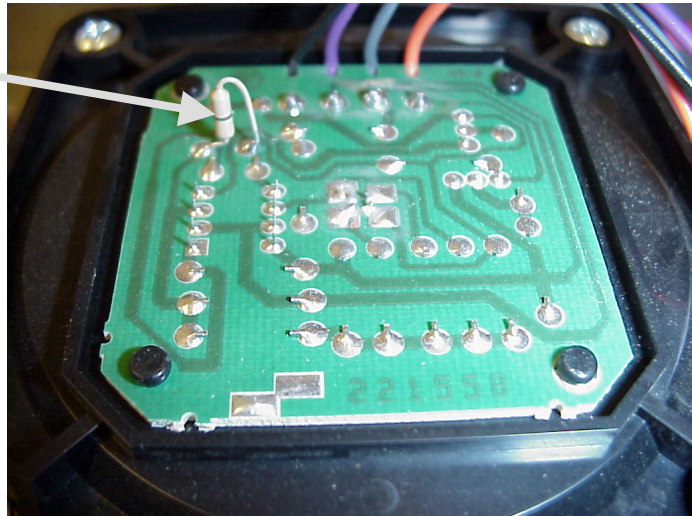


Application of the Honeywell Electronic Air Cleaner is easy. The air flow switch automatically turns on the air cleaner in most applications. The switch is calibrated to make contact at a velocity of 200 ft/min. This converts to the following minimum air flow rates for automatic activation of the air flow switch:

Size	Model Number	Model Number	Minimum Air Flow
16" x 20"	F50F1149	F300E1001	444 cfm
20" x 20"	F50F1032	F300E1027	555 cfm
16" x 25"	F50F1073	F300E1019	555 cfm
20" x 25"	F50F1065	F300E1035	694 cfm

If operation is desired at lower air flow rates, the Honeywell EAC can easily be adapted to turn on in response to signals from the “EAC” terminals on the fan control board in the furnace. To adapt an air cleaner to operate in this mode, simply cut the plug from the power cord and wire directly to the terminals on the fan board; then clip the airflow switch disable jumper as shown below.

**Air Flow Switch
Disable Jumper**



In this mode of operation, the airflow switch is bypassed, allowing the air cleaner to operate whenever it is supplied with power from the fan board. This will cause the air cleaner to cycle on and off with a call for fan, regardless of the speed.

While the electronic air cleaner generates a small amount of ozone in normal operation, operating the system at a lower air flow rate does not increase the total amount of ozone produced. Because the air flow rate is lower, the concentration of ozone in the air in the duct could be slightly higher, and therefore may be more noticeable near the duct outlets. This level will usually remain below the typical threshold of detection. If desired, the ozone generated by the air cleaner can be reduced by following instructions in the installation guide.

For systems with variable speed air handlers, especially those with cost-effective ECM-driven blowers, we recommend running the blower continuously on a low speed to maximize the benefits of your electronic air cleaner. A Honeywell EAC and a variable speed air handler is truly a winning combination!