

The benefits of constant airflow

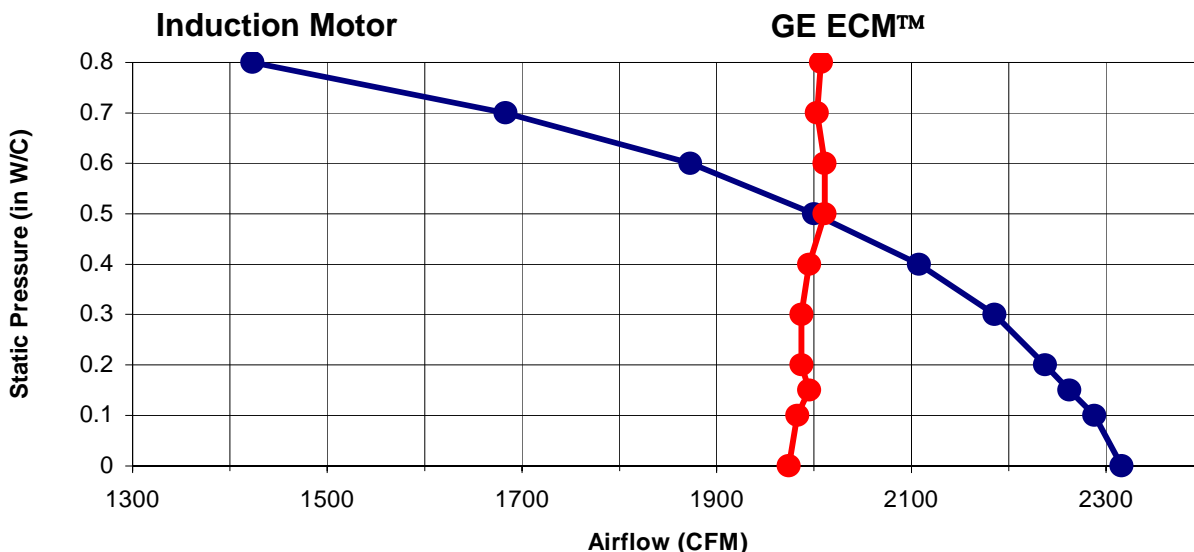
Unlike a conventional induction motor, **GE's ECM™** motor regulates itself by automatically changing its torque and speed to maintain a preprogrammed level of constant airflow over a wide range of external static pressures and does so without the use of airflow sensors.

The graph below highlights the difference between unregulated and regulated airflow. As the induction-motor curve indicates, its unregulated airflow output decreases as the static pressure of the system increases. In contrast, the ECM's regulated airflow output remains constant over that same range of static pressure.

The ECM also has implications for comfort. First, in cooling mode, an ECM equipped HVAC system can be designed to extract more moisture from the air by slowing the airflow over the air-conditioning coil. Doing so allows the coil to remove up to six times more moisture than an unregulated system.

For optimum heating the ECM system can be programmed to deliver just the right level of airflow for optimum low and high stage heating comfort.

Comparison of unregulated and regulated airflow



As a result, the ECM can, under normal operating conditions, ensure constant comfort for the homeowner because the motor will automatically maintain its programmed level of airflow even if there are dynamic changes in static pressure (e.g. a loaded air filter, zoning changes, obstructed supply register).

This constant airflow capability provides a number of important benefits. The ECM system can compensate for poor duct design. Systems with inadequate duct volume or abnormally high static pressure owing to the use of flex, for example, can now deliver factory calibrated airflow. The ECM system can automatically compensate for the increased static pressure as the system air filter gets "dirty".

Better indoor-air quality (IAC) can be achieved quietly and inexpensively with the ECM motor because it can be set to run continuously at reduced airflow levels, between heating or cooling cycles. This allows the air to be filtered without excessive drafts and without sacrificing efficiency.

In fact GE's ECM motor set to run in continuous fan mode, will typically consume only 65 watts of power versus over 500 watts from an induction motor system.

Independently optimized airflow for low and high stage heating and cooling along with super efficient continuous fan operation are now available with GE ECM equipped systems.

Offer your customers the ultimate comfort technology GE ECM.

GE ECM™

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