

ELECTRONICALLY COMMUTATED MOTORS



Aerovent is now offering engineered Electronically Commutated (EC) motors on a number of Square Inline Centrifugal Fans (Models SCDD & SCBD) and Spun Aluminum Power Roof & Wall Ventilators (Models ACX, ACXD, ATD, ATDR, ATDW, ATDWR, ATB, ATBR, AWX & AWXR.) Electronic commutation is the latest motor technology to be used in direct drive fans. Also known in the industry as Brush Free or Brushless DC, the EC motors utilize an electronic circuitboard to control the functionality of the motor. The motor operates off of 115V AC single phase power, which is converted to DC power within the motor's circuitry. The result is a highly efficient motor with an expanded speed control range and a variety of speed control options to choose from.

Benefits

- Efficiencies up to 85%
- Constant efficiency as the motor speed is varied
- Up to 66% energy savings over traditional PSC motors
- Performance range comparable to a belt drive fan with reduced maintenance benefits of a direct drive fan
- 80% usable turndown range as compared with 40% maximum on PSC motors
- Soft start gives fans smooth, quiet start
- Lower operating temperatures result in longer life and reduces energy consumption
- Heavy duty ball bearings are permanently lubricated
- Elimination of VFD results in lower initial cost

Speed Control Options

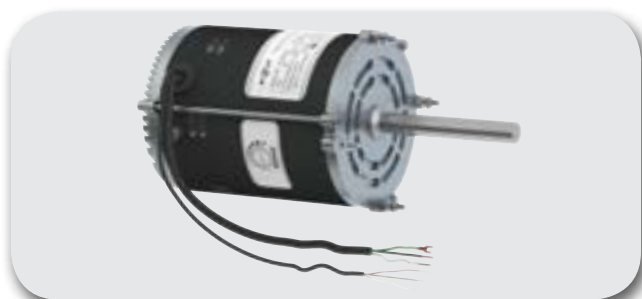
- Motor Mounted Dial – A potentiometer is mounted to the motor housing offering full speed control range. Speed adjustment is made with a small flat head screwdriver making system balance simple and easy. Also eliminates the need to mount or wire a speed controller.
- 0-10V DC Lead – A 36" long control lead is prewired to the motor which accepts a 0-10V DC signal and can be wired into building control systems.
- Remote Mounted Dial – A wall mounted dial allows the fan to be controlled from within the building by sending the motor a 0-10V DC signal. This option includes a 115V to 24V AC transformer mounted in a NEMA 1 electrical enclosure.



Motor Mounted
Speed Control Dial



Remote Mounted
Speed Control Dial



0-10V DC Lead
For Building Control Systems

For more information on the specific models that utilize EC Motors, see the Spun Aluminum Power Roof Wall Ventilators Catalog 102 & Inline Centrifugal Fans Square Catalog 340.