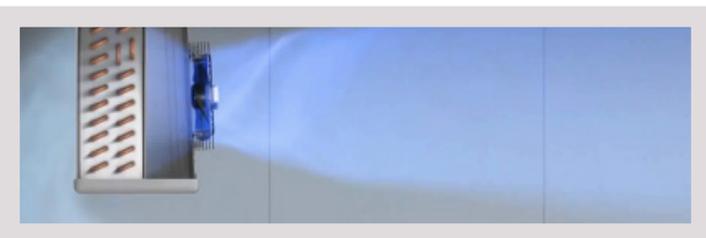


BACKGROUND

EC fans are actually a complete fan/motor assembly which includes a highly engineered fan and bell mouth matched to an Electronically Commutated (EC) motor. The EC motor is a brushless DC motor with on-board programmable speed control. The EC Fan feature can be selected as an option in Colmac A+Pro software.

LONG AIRTHROW AND LOW NOISE

- Integral air straightening vanes increase airthrow distance by 40 - 50%
- Optimized bell mouth and blade shape reduce sound levels by 3-6 dB
- Extremely low operating sound pressure levels (less than 70 dB(A)) possible

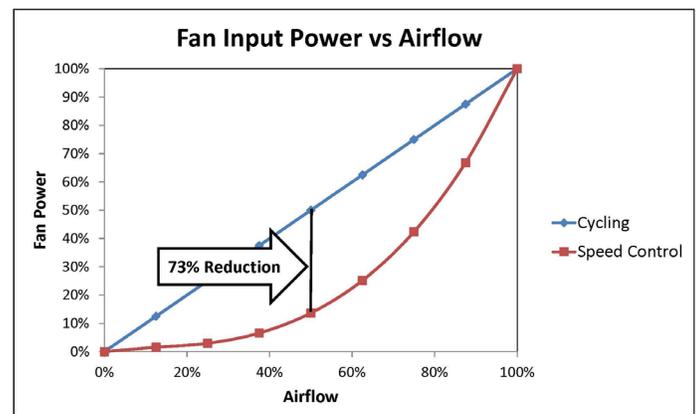


PLUG AND PLAY TECHNOLOGY

- Installs in half the time compared to conventional fans and motors
- On-board speed control eliminates need for separate VFD
- Uses standard supply voltage wiring - VFD cabling not required
- Integrated fan, motor, bell mount, and controls designed for peak performance

HIGH EFFICIENCY

- Controlling fan speed for capacity control can reduce power consumption by more than 70% compared to fan cycling (see chart below)
- State-of-the-art fan and bell mouth design results in high fan efficiencies



EC FAN TECHNOLOGY



ON-BOARD INTELLIGENCE

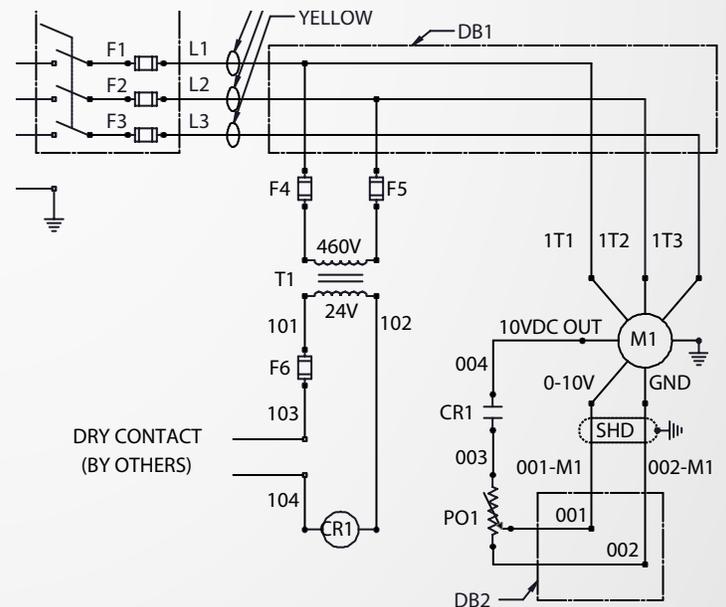
- Fan speed control via 0-10VDC or 4-20mA control signal (separate VFD not required)
- MODBUS-RTU communications compatible
- Motor diagnostics and alarming built-in and accessible via MODBUS-RTU

CONTROL LOGIC

- Variable speed operation is controlled via a process signal, 0-10VDC or 4-20mA. The process signal drives the motor speed from zero to full speed.
- Colmac has introduced a basic, pre-engineered control system that is shown below. A single motor is shown in the control graphic however this concept can be applied to units with multiple motors.

ROBUST AND RELIABLE

- Bearing life expectancy of 140,000 hours (16 years @ 100% duty)
- Maintenance-free sealed bearings and brushless commutation
- Corrosion-resistant composite construction and IP55 ingress protection
- Low temperature bearing grease allows operation at temperatures as low as -40 degrees



CRN



CSA

ASME Sec. VIII, Canadian Registration Number, UL508, Canadian Standards Association

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