



INTRODUCING

GRIDSMART™

VARIABLE FREQUENCY DRIVES

By Aerovent



Model F510

- 5-150 HP (230V)
- 5-250 HP (460V)



Model L510

- 1/4-1 HP (115V)
- 1/4-3 HP (230V)
- 1-3 HP (460V)

GridSmart™

Premium Efficiency Products

Are you GridSmart™?

Aerovent is proud to introduce our new line of GridSmart™ Variable Frequency Drives (VFD). GridSmart™ VFDs are an ideal solution for our customers who are looking to reduce their energy consumption while complying with the Department of Energy's new fan regulations.

GridSmart™ VFDs are a versatile drive product that can be easily configured for almost any application involving fans and blowers. They come standard with simple-to-select preset parameters for common fan applications.

While the average energy savings varies from system to system, the initial cost of a GridSmart™ VFD will quickly pay for itself – resulting in reduced operating costs and maintenance over the life of your fan and motor.

Benefits of GridSmart™ VFDs Include:

- Reduces energy consumption and operating costs
- Optimizes motor operation to match the requirements of the system
- Allows equipment to operate at lower speeds, extending the life of the equipment and reducing maintenance
- Eliminates the need for dampers, inlet vanes and soft starters
- Eliminates the need for belt driven fans and maintaining belts and bearings





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F510 Features & Highlights

- Two separate PID loop controls
 - > Switch between PID loops based on input signal or real-time clock setting
- Extensive monitoring and display capabilities
- Real time clock built-in (RTC)
- Conformal coating of all printed circuit boards (non-hazardous)
- Plenum Rated
- Built-in Modbus RTU, BACnet MS/TP or Metasys (N2) communications via on-board RS485 or RJ45 connection
- Built-in PLC functionality
- Scalable process parameters to engineering units
- Digital I/O
 - > 6 Configurable digital inputs
 - Over 40 available selections per input
 - Assign inputs as normally open or normally closed
 - 24V power supply on board
 - Extremely fast update time
 - > 3 Configurable digital relay outputs
 - Qty (1) form C and (2) form A type relays
 - Over 20 available selections per output
 - Assign outputs as normally open or normally closed
 - > Dedicated hardware safety input for user's emergency interface
 - Selectable fast ramp or coast stopping
- Analog I/O
 - > 2 Analog inputs
 - > 2 Analog outputs
 - > PTC input
- Pulse input and pulse output signals
- 3 modes of auto tuning to best adapt the F510 with the applied motor
- Controls induction or permanent magnet motors
- 100 Mhz RISC process for ultra-high speed computations and rapid loop-time updates

L510 Features & Highlights

- Cost effective drive solution with wide range of programming capabilities
- Control methods available:
 - V/F mode or sensorless vector operation
- Parameters grouped by function
- Power Range:
 - 115V, 1Ø (0.25 to 1 HP)
 - 230V, 1Ø (0.25 to 3 HP)
 - 230V, 3Ø (0.5 to 3 HP)
 - 460V, 3Ø (1 to 3 HP)
- PID process control loop
 - Sleep mode
 - 0-10VDC or 4-20mA feedback
 - Loss of feedback or tracking detection
- Built-in Modbus or BACnet protocols (RJ45 Interface)
- 5 Digit operator's keypad
 - Scalable display
 - Programming parameters
 - Diagnostics monitoring
- Built-in Speed Pot
- Digital and Analog Inputs - Outputs have extremely fast (~4 msec) update time