

**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™ VFD's 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.

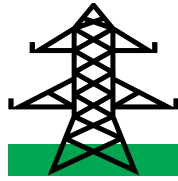
**Benefits of GridSmart™ VFDs Include:**

- Reduces energy consumption & 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 & bearings





A GREEN INITIATIVE



# GRIDSMART™

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## Model L510

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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

The Industrial Choice