

# ECM Fan Control

For EC Motors Programmed for Speed Control



## COMMERCIAL REFRIGERATION EVAPORATOR MOTOR CONTROL



### The GreenWize Advantage

- **ENERGY COST SAVINGS UP TO 90%**  
EC motor with FC fan control compared to shaded pole motors (OEM).
- **CONTROL FAN MOTORS IN RACK TYPE SYSTEMS**  
Only fan control that operates with fully variable motors in grocery store type rack systems.
- **ECM FAN CONTROLLER REDUCES BTU**  
When fan controls are used, case studies show a reduction in duty cycle
- **CONTROL MULTIPLE EVAP COILS**  
GreenWizeFC is capable of controlling multiple evap coils that share a common solenoid. Substantially saving equipment costs.
- **INDUSTRY LEADING THREE-YEAR WARRANTY**  
GreenWizeFC comes with an industry leading three-year replacement warranty
- **ENERGY REBATES**  
GreenWizeFC is widely accepted where energy efficiency rebates are offered
- **"GO GREEN"**  
GreenWizeFC offers a simple solution for retailers to do their part in participating in energy reducing measures



## ECM Fan Motor Control Model FC - for EC motors programmed for speed control applications

**Take EC Motor Efficiencies to a whole new level** With the technology advancements of ECM's (electronically commutated motors) energy efficiency has never been better for refrigeration fan motors. However, a missing component has left a void in taking those efficiencies to the next level. Until now, there has not been a universal, all-encompassing fan controller to control the fan speed on refrigeration evaporator coils. GreenWize Energy Solutions has filled that void by introducing the GreenWize ECM Fan Control System. The GreenWize Model FC fan control is the only fan control specifically designed to operate with fully variable motors in commercial refrigeration rack type systems.

The GreenWize Fan Control System utilizes state-of-the-art technology to control the fan speed maximizing energy savings and increasing the efficiencies of the evaporator coil itself. This allows for significant energy savings as the ECM driven fans use a fraction of the energy when operating at a lower speed. Keeping the fan turning during non-refrigeration or low demand periods allows for consistent temperatures in the refrigerated area and eliminates air temperature stratification.

**Exclusive Two-Channel Technology** The GreenWize Fan Control System is completely universal and can control with line or low voltage (0-10 VDC) signal programmed ECMs. The controller has a universal power module allowing for a range of input voltages, so additional wiring for the controller is not necessary. In addition, the controller has two channels of output signal. A line voltage signal output is used for discreet speed motors (only two speeds are programmed into the ECM). A low voltage output is used for fully variable ECM's like Orange Motor Company's fully variable, fully universal Orange Motor (part number: OMC-3.3-UNV-FV), that are controlled with 0-10 VDC. These two output options allow for control of any ECM fan motor that has been programmed for speed control. There is no need for different models of controller, as the GreenWize Fan Control is the only evaporator fan motor controller you will need.



# Energy Saving Measures for Walk-in Freezers, Very quick payback.

## Only Evaporator Fan Control To Operate With Fully Variable Motors

GreenWize FC Fan Control combined with a fully variable motor (Orange Motor) offers the industries first rack type refrigeration system evaporator control.

Produces up to 90% savings compared to shaded pole motors.

GreenWize FC fan control will save 70% more energy than EC motors running continuously at normal speed (1550 RPM).

## GreenWize FC Fan Control Savings Measured and Verified.

### ENERGY SAVINGS MADE SIMPLE



### Specifications

Type of Service:	90-264 VAC
Input:	90-264 VAC 47-400 Hz
Low Voltage Output:	0-10 VDC
Line Voltage Output:	L1 VAC
Length:	5.64" (14.3 cm)
Width:	3.26" (8.3 cm)
Depth:	1.91" (4.8 cm)
Weight:	11 ounces
Enclosure:	POLYLAC ABS PA-765
Operating Temp:	-54° F to 194° F
Supply Cord:	12 AWG, 4 Conductor, Type SOOW 600V 90C UL/CSA
Color Code:	Black - Line Red - Discreet Output White - Neutral/Line Green - Ground
Warranty:	Limited Three-Year Replacement Warranty

### Step 1: Install GreenWizeFC Controller

#### Wire GreenWizeFC Controller in Walk-in Cooler

##### Power for Controller:

- BLACK** - L1 (Fan Power Supply)
- WHITE** - Neutral/L2 (Fan Power Supply)
- GREEN** - Ground

##### Speed Control Wiring:

- RED** - Discreet Speed Output  
(Line voltage from L1)
- Or** +/-: Low Voltage Output  
(0-10VDC)

#### 2-Speed Operation (w/Orange Motor)

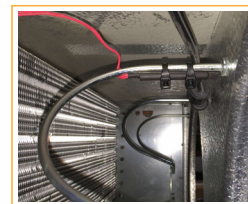
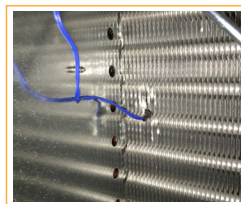
- Green light = controller is powered & ready
- Steady Red Light = High Speed (1550 RPM)
- Steady Yellow Light = Low Speed (750 RPM)

#### Variable Speed Operation (w/Orange Motor)

- Blinking Red Light = High Speed Range (1550-1285 RPM)
- Blinking Red and Yellow Lights = Middle Speed Range (1285-1015 RPM)
- Blinking Yellow Light = Low Speed Range (1015-750 RPM)

### Step 2: Install Air Temperature Thermistors (sensors)

- Mount coil temperature thermistor (blue) into coil and mount air discharge coil thermistor (red) onto motor mount bracket.



### Step 3: Save Energy - and Money!

Take pleasure in the fact that you are increasing your bottom line while doing your part in reducing energy usage.



Conforms to UL Std 873;  
Certified to Can/Csa Std C22.2 No.24

