



## DESCRIPTION

Link4's iOptimizer is built for high performance and optimal energy savings. Various functions are provided to minimize energy consumption, improve efficiency, and save you money during operation.

Utilizing the iOptimizer can improve the efficiency and air flow of your fans. This allows you to run all your fans at one time at varying speeds which maximizes air flow patterns, extends the life of your equipment, and saves you money.

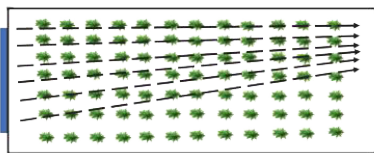
Adjust the iOptimizer with pumps to manage water flow in fertigation or hydroponic systems, or regulate the water with your pad system to extend pad life.

To ensure an efficient, effective, and smooth-running positive pressure greenhouse or grow, combine the iOptimizer with one of Link4's controllers.

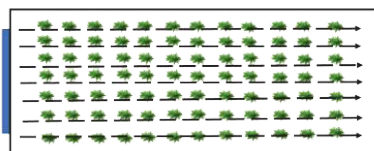
The iOptimizer's compact design, NEMA 4 enclosure, and pre-configured integration with UL/cUL certification, was designed to meet both OEM's and System Integrators' needs.

## BENEFITS

Improved uniform air flow  
Optimizing crop growth and energy consumption.

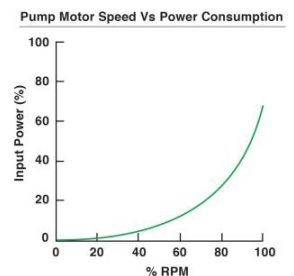
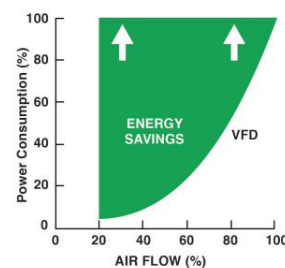


Air flow **without** smart motor control  
Cooling stage 1, single fan running, 1,000 cfm



Air flow **with** smart motor control  
Cooling stage 1, both fans running, 1,000 cfm

Saves energy and extends equipment life  
Reducing energy and maintenance costs while extending the life of equipment.



# "We Make Growing Easier"



# iOPTIMIZER

## SMART MOTOR CONTROL

### SENSOR INTERFACE

ITEM CODE	DESCRIPTION
990-0250-00 (Series 100)	<b>Digital Temp &amp; Humidity Sensor</b> Using 3 of the cooling stages of exhaust fans at predetermined speeds.
990-0001-00 (Series 1000)	<b>Digital Temp &amp; Humidity Sensor</b> Using 3 of the cooling stages of exhaust fans at predetermined speeds.
990-0001-04 (Series 100 & 1000)	<b>Aspirated Indoor Digital Temp &amp; Humidity</b> Using 3 of the cooling stages of exhaust fans at predetermined speeds.
990-0006-03	<b>Temperature Probe- Air: Radiation shield, 3-Wire</b> Allows ramping of speed from 1-100% to control the temperature more precisely.
xxx (Series 1000)	<b>Outside Humidity Sensor</b> Allows functions to slowly bring in humid air and can be coupled with a heater to create an environment to keep humidity down.
990-7890-00 (Series 1000)	<b>Barometric Pressure Sensor</b> Can be used in inflation tube or to monitor house pressure to increase / decrease fan speed maintaining a set pressure.
xxx (Series 1000)	<b>Room Differential Pressure Sensor</b> Much like a pressure sensor, but can use the inside pressure and outside pressure to determine the correct fan speed. Used in Positive Pressure houses.
990-7882-00 (Series 1000)	<b>Soil Moisture Sensor:</b> Measure Micro-Siemens Adjusts pump volume on pad walls for optimum flow and increased pad life.
xxx (Series 1000)	<b>MODBUS Flow Sensor</b> Using a flow sensor, you can control the speed of a pump to make sure you maintain the correct flow.

### PRODUCT SPECIFICATIONS

ITEM CODE	DESCRIPTION	DIMENSIONS	WT
973-30-0003-03	iOptimizer Digital Speed Control Panel - UL508AVFD 3 HP, 3PH, 240 VAC	xxxxx	xx
973-30-0002-01	iOptimizer Digital Speed Control Panel - UL508AVFD 2 HP, 1PH, 240 VAC	xxxxx	xx
973-30-0002-03	iOptimizer Digital Speed Control Panel - UL508AVFD 2 HP, 3PH, 208/240 VAC	xxxxx	xx
973-30-0003-13	iOptimizer Digital Speed Control Panel - UL508AVFD 3 HP, 3PH, 480 VAC	xxxxx	xx

### GENERAL CONTROLLER INFORMATION

<b>CONTROLLER TYPE</b>	Variable Frequency Drive (VFD) Controller
<b>PROJECT TYPE</b>	Indoor / Greenhouse / Hydroponics / Vertical
<b>PROJECT COMPLEXITY</b>	Medium to Complex
<b>PROJECT SIZE</b>	Medium to Large
<b>USES</b>	Fans, pumps

### FEATURES / SPECIALIZED CAPABILITIES

<b>ANALOG INPUTS</b>	1 input (0-10 VDC / 0-20 mA)
<b>ANALOG OUTPUTS</b>	1 pulse train (0-10 VDC / Max 3.6 kHz)
<b>ENCLOSURE</b>	Indoor duty- IP20
<b>OPERATOR KEYPAD</b>	Yes- easy user modifications.
<b>BUILT-IN DISCONNECT</b>	Yes- for equipment & user safety.
<b>BUILT INTERMINAL BLOCKS</b>	High & low voltage- easy install.
<b>MODBUS CAPABLE</b>	Yes
<b>CERTIFICATIONS</b>	UL/cUL
<b>SOFT START RAMPING</b>	Easier on equipment and power grid. Less starting / stopping of equipment. Less plant shock from temperature fluctuations.
<b>SINGLE PHASE CONVERSION</b>	Converts single phase power to 3 phase.
<b>POSITIVE PRESSURE CONTROL</b>	Yes
<b>FAN REGULATION CONTROL</b>	Yes
<b>PUMP FLOW CONTROL</b>	Yes
<b>VENT / CURTAIN MOTOR CONTROL</b>	Yes

### EQUIPMENT INTERFACE

<b>FANS</b>	Exhaust fans, HAF fans, positive pressure fans (Fan Jets), Inflation fans
<b>PUMPS</b>	Water delivery pumps, pad pumps
<b>MOTORS</b>	Curtain motors, vent motors
<b>MODBUS INTERFACE</b>	Yes
<b>VOLTAGE / PHASE</b>	208, 240, 480 3-phase motors / pumps

NOTE 1: Recommend one iOptimizer per motor.

NOTE 2: A "contactor" is required for each iOptimizer unless the controller is ramping the fan or pump down to "0" for "off".

NOTE 3: To be used with 3-phase motors or pumps only.

