

# KVAR<sup>®</sup>

## Energy Controller (EC)



Commercial • Industrial • Residential



*Reducing electrical waste  
and energy costs!*

*Energy efficiency is a commitment worth making, especially with today's global climate change. Become more earth friendly, while reaping the financial savings from using the KVAR® EC!*



## **KVAR® EC**

**is an electromagnetic control system that reduces the amount of non-productive current in your existing electrical system. It helps to significantly reduce electrical costs and pollution from energy generated by the utility companies.**

**KVAR® EC will reduce demand at the meter by reducing lost and wasted power, plus it will reduce maintenance costs and increase equipment life by reducing heat around the motor and wiring caused by reactive current.**

***Discover the savings that thousands of satisfied customers are enjoying!***



KVAR® EC is ideal for commercial, industrial and residential energy conservation.

## **The Problem**

Up to **25%** of the billable electricity consumed in homes and businesses is non-productive and unusable.

Most AC motors operate at 80% efficiency under a full load ... the efficiency drops dramatically at lower loads.

This non-productive energy wastes money and also shortens the life of initiative equipment such as motors, HVAC equipment, pumps and major appliances.

***"Over \$16 billion dollars of electricity is unusable energy, but billable in the U.S."***

*- U.S. Dept. of Energy*

***"The adequacy of North America's electricity system will decline unless changes are made soon... demand for electricity is expected to increase over the next ten years by 19 percent in the U.S., but confirmed power capacity will increase by only 6 percent."***

*- North American Electric Reliability Council (NERC)*

## **The Solution**

**KVAR® EC fine tunes electrical systems to reduce non-productive and wasted electricity, giving you cost-effective energy!**



# Save up to 25% on your electric bill *while helping to save the environment*

## How KVAR® EC works

- KVAR® EC has patented an apparatus and methodology for determining, to an exact science, the amount of capacitance that is needed to optimize inductive motors to unity for maximum savings.

KVAR® EC fine tunes the electrical system from the inductive equipment back through the utility company's KVA electric meter, kilowatt hour meter (kWh) or demand meter. This fine tuning slows down the operation and therefore reduces electrical consumption.

- The KVAR® EC stores the reactive power to create the electromagnetic field (EMF) around the inductive windings of a motor.
- As motors operate, reactive power is "pulled" and "pushed" to and from the KVAR® EC by the motor at 60 cycles/second.
- The KVAR® EC stores and releases what the motors need to function more efficiently.

This unique approach serves to reduce the heat generated on the lines and therefore also reduces the strain placed on all the electrical components.

- Electricity, that would normally be pushed back through the power distribution lines, is reclaimed and recycled by the KVAR® EC.
- The KVAR® EC reclaims, stores, recycles and supplies power to all inductive loads.

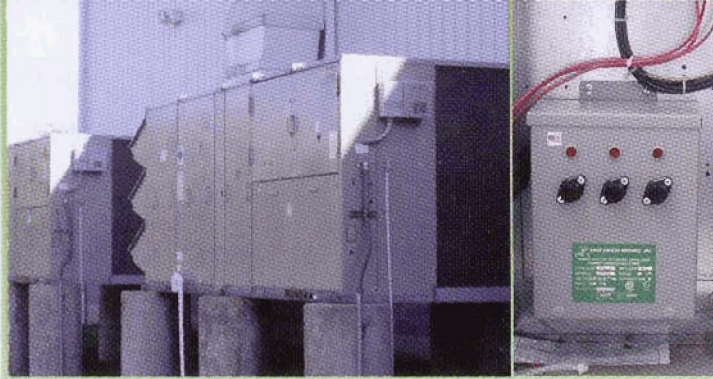
## Installation is quick and the savings immediate

KVAR® EC panel mounted system is attached to the top breaker on a 100, 200 or 400 amp single or three phase service panel. By installing KVAR® EC in this location, you are optimizing both sides of the busbar in your panel and insuring whole facility surge protection. KVAR® EC panel system can be installed outdoors or indoors, at the main breaker panel or a sub-panel.

For larger three phase motors, the preferred location of KVAR® EC is at the motors' disconnect, which are installed after trained electricians have performed an individual sizing of the respective motors. This creates the largest savings and quickest ROI.

**Qualified electricians should perform all work.**

**Businesses can now dramatically reduce the cost of determining how much capacitance is required to optimize each inductive load at their facility. The patented KVAR® apparatus and methodology, achieves this by eliminating the typical electrical engineering, design, and manufacturing costs. This precision technology fine tunes each motor to unity for immediate savings with a quick ROI. Installation is fast, simple and sized to the specific unit.**



Rugged unit construction ensures reliable performance indoors and out.

## KVAR<sup>®</sup> EC advantages

- Return on investment is rapid
- Power savings are immediate and average from 8% up to 25%
- Savings guaranteed
- Reduces power surges
- **Increases motor and appliance life**
- **Reduces the harmful effects from electro-magnetic fields**
- 5 year warranty
- 25 year life expectancy
- U.S. Patented, NASA Tested, UL Listed, CSA Approved, Cleaner & Greener Certified, RoHS Certified



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