kVAR ENERGY CONTROLLERS (kVAR ECS)

6 TO 25% ENERGY SAVINGS

EFFECT

Effective and Proven Energy Saving Technologies

TECHNOLOGIES

- Best "size & optimize" power conditioning methodology and products
- 5 years warranty
- Proprietary Verification Protocol (M & V) to verify energy and demand savings
- Operational systems deployed worldwide

BENEFITS

- More than 600 configurations
- Power factor optimized to highest efficiency levels
- Significant savings on customers' electric bills
- Impressive ROI
- Reduced electric system losses
- Increased life of motors
- Reduced maintenance costs
- Reduced carbon footprint

APPLICATIONS

- Pumps
- Compressors
- Chillers
- Rooftop Air Conditioners
- Air Handlers/Fans
- Conveyors
- Elevators
- Escalators
- Presses
- Molding Machines

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SIZING SURVEY

The sizing of capacitor requirements is conducted in real time utilizing a closed loop. We introduce Reactive Power or kVAR which stands for Kilovolt-Amp Reactive by using capacitors in that closed loop which includes only the motor load and these capacitors. By varying the amount of capacitance, as the motor runs, we end up optimizing PF close to unity. Our sizing survey procedures allow us to determine the most efficient operational capacitor configuration for each motor or group of motors. The use of proprietary survey methodology and specialized sizing apparatus saves a lot of time and provides great accuracies in bringing PF as close to unity as possible, while monitoring voltage, kW, kVA, kVAR, PF and specific harmonics.

CAPACITOR USE METHODOLOGY

Applying capacitors directly at the motor load is by far the most efficient methodology to save energy in a commercial or industrial facility. The immediate benefit is that the motor runs cooler, quieter, lasts longer because the heat generated by the motor is gone. That means that electrical losses of the motor have been eliminated. Optimising motors individually or in groups, from electric sub-panels, end up eliminating electrical losses from these motors, all the way to the utility meter which determines billing for energy and demand. Electrical losses through transformers, panels, breakers and wire conductors add up to significant savings. Applying this level of PF optimization will reduce peaks and eliminate PF penalties and improve facilities utilisation factor. Maintenance costs will also be significantly reduced, further justifying the use of our kVAR Energy Controllers.

Power factor is a measure of efficiency by which an electrical system converts the electric current, supplied by the supplier of electricity, in useful power. Our kVAR Energy Controllers optimize power factor to reduce energy consumption (kWh), electric demand (kVA), reactive power (kVAR) and eliminate PF penalties. In the commercial and industrial sectors, having PF at unity or 100%, means fully efficient and optimized use of energy you are billed for. Alternatively, if power factor is low during the operation of various motors, utility clients end up paying for energy they don't use. This translates into PF and utilisation penalties assessed by the electric utility. Inefficient use of electric energy overloads of the distribution grid system, causes voltage drops, and increases the carbon footprint of companies.

BUSINESS SECTORS

Our operating companies have successfully deployed kVAR ECs in more than 50 business sectors, including:

- Car dealerships
- Car washes
- Cement factories
- Commercial buildings
- Gas stations
- Golf courses
- Hospitals
- Hotels and Casinos
- Ice rink complexes
- Oil wells
- Plastic plants
- Recycling plants
- Restaurants
- Supermarkets
- Universities/Schools
- Wastewater treatment

FOR MORE INFORMATION, CONTACT:

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WAVSolution
Make the world a better place