American Control Technologies, Inc.

PFC Series-- Save Up To 25% In Energy Costs
Eliminate Costly Power Factor Penalties

Low Voltage Systems

Highlights

- Voltage ratings from 240 to 600 VAC
- Fixed or Automatically switched
- Systems
- Harmonic filtering for optimum quality
- Standard “off-the-shelf” units and specification designed
- Small footprint with maximum KVAR
- Upgradeable modular construction
- Stand-alone, multi-unit and integrated systems

Ongoing development of equipment and technology connected on an electrical power distribution system continues to propagate power quality issues. Power factor correction and harmonic mitigation demands can be met with the ACT PFC network of systems and equipment.

Passive power factor correction and harmonic mitigation products offer both fixed and switched configurations, from 240 through 600 VAC. Quick delivery, “standard” units for improving power factor and de-tuned units reducing the 5th order harmonic level, are available, as well as larger, engineering intensive system specific assemblies. Only maximum performance-based-for application components such as capacitors, iron-core reactors, contactors, and controllers are used.

Our product platform allows for stand-alone units, multiple assemblies, integration with motor control centers, switchgear, and match and line with existing equipment. This approach allows for many power system arrangements that can be easily accommodated or adapted.

With the continuous, reliable delivery of power so critically visible to everyday business, government, and industry, it’s only natural that Staco Energy Products Company should be your partner of choice.

Distributed By:

Modular Chassis Design

Each Individual module is assembled and wired and contains capacitors, reactors (when filtering is required), contactors and bus bar. Modules are installed in a vertical style arrangement within the assembly, and can easily expand to meet the appropriate kvar needs

Power Capacitors

Standard reactors are sized to accommodate 5th order harmonics for de-tuning purposes, and provide safe and effective protection from high harmonic overload conditions. Specification designed reactors for tuning or de-tuning can be provided to meet virtually all customer requirements. Three phase AC reactors are constructed with all copper conductors, and are rated for Class H insulation (180°C). The finished assembly is baked with an epoxy resin for reliable long life, and includes a thermal

Switching Devices

Contactors provide for the switching of low inductive and low loss capacitors. High duty operation type devices include early make contacts, which incorporate protection from contact welding, and damping resistors, which reduce the value of “make current.” These features are of great value in order to minimize and withstand the full inrush currents from capacitor back-to-back switching. The contactors are UL listed.

Iron-Core Reactors

Standard reactors are sized to accommodate 5th order harmonics for de-tuning purposes, and provide safe and effective protection from high harmonic overload conditions. Specification designed reactors for tuning or de-tuning can be provided to meet virtually all customer requirements. Three phase AC reactors are constructed with all copper conductors, and are rated for Class H insulation (180°C). The finished assembly is baked with an epoxy resin for reliable long life, and includes a thermal sensor.

PFC Series-- Save Up To 25% In Energy Costs
Eliminate Costly Power Factor Penalties

American Control Technologies, Inc.

ACT PFC Intelligent Controller

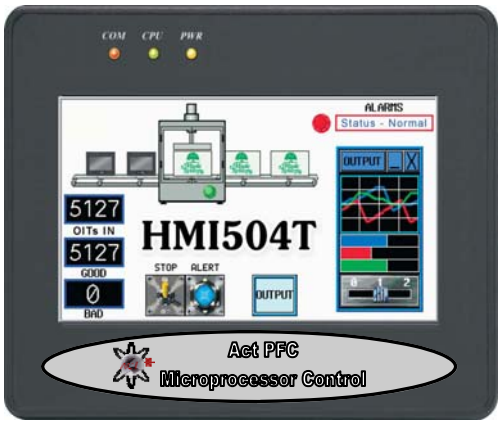
The microprocessor based power factor controller intuitively manages and performs a variety of functions while regulating the multi-step capacitor systems. Fast, accurate and reliable measurements are provided and displayed for power factor, line voltage, line current, active power, reactive power, C.T. current crest factor, number of operations (output relays), number of alarm conditions, internal enclosure temperature (area around the PF controller), and the number of steps operating.

System protection alarms include: overvoltage, overtemperature, harmonic overload, and no voltage.

An LED visual display and RS485 communications port are included. The device is self-programming for up to 12-steps and provides automatic C/k setting and CT circulation direction. Operating time ranges can be set from 0.5 to 300 sec (discharge time settings 5 to 255 sec), with circular and linear logic for sequential operation of capacitors and contactors, allowing for more even distribution, improved performance and reduced maintenance.

A Better Choice of features

- Decreases electric utility costs, saves lost productivity, reduces equipment failure, and minimizes downtime
- When installed, improves power factor, increases KVA capacity and efficiency of present electrical distribution system
- UL 508 listed, complete assembly
- Three phase power capacitors with 25, 50, 100 and 200 KVAR steps, with other sizes also available
- Current limiting type fuses rated at 100kaic, three-phase fault protection
- Blown fuse indication
- Microprocessor based power factor controller with digital display
- Automatically switched capacitors provide more efficient operation and minimizes load transients
- Iron-core reactors for maximum harmonic mitigation (as applicable for either a de-tuned or tuned requirement)
- Forced air ventilation with reactors
- Control Power Transformer (CPT)
- One source of manufacturing responsibility, from design through construction, to shipment
- Easy installation and start-up



Options

- Circuit breaker, molded case switch
- Non-standard capacitors or reactors
- Unity power factor correction requirement
- TVSS, surge protection
- Current transformer, split core type
- NEMA12, NEMA 3R or other type enclosures
- Top or side entry

Standard Unit KVAR Ratings

- Power Factor Correction, each unit 800 KVAR maximum per enclosure assembly, without circuit breaker
- Harmonic mitigation per enclosure assembly, each unit 400 KVAR, without circuit breaker
- Available from 50 to 2400 KVAR. Consult the factory for higher ratings and unique application requirements.

Consult ACT for:

Low voltage capacitor components and “at load” capacitors
Low voltage transient free and realtime capacitor systems
Low voltage active harmonic filters (ACtive TrAC)
Medium voltage metal enclosed capacitor and harmonic filter systems