



PQ2 Power Conditioning System

PQ2 is a state of the art energy saving and power conditioning system. PQ2 is an integrated, modular system custom designed to effectively and economically optimize power quality with guaranteed electric savings of up to 10%. Typical paybacks of less than three years are realized. PQ2 is versatile and is available in different configurations based on your facility's requirements. PQ2's multistage system is triple protected, with each stage independently monitored, protected, and activated, resulting in simultaneous addressing of multiple electrical anomalies. This eliminates the need to purchase a number of different devices to correct each anomaly.

PQ2 Applications:

PQ2 is designed to address power quality issues for industrial, commercial, and institutional applications. PQ2 is easily implemented for the entire facility and distribution, as well as at individual loads such as data centers, electronic equipment, production machinery, and others, regardless of the plant's electrical load.

PQ2 Benefits:

PQ2 offers guaranteed savings of up to 10% through reductions in Kilowatt/KVA Demand and Kilowatt-hour consumption and related charges, with actual payback periods of less than two years, without any disruptions to equipment or machinery.

PQ2 improves power quality through voltage stability and reduction of harmonic distortion while protecting equipment and machinery, resulting in reduced maintenance and downtime savings as well.

How Does PQ2 Work?

PQ2 is an energy saving and power conditioning system.

PQ2 is an integrated system consisting of multi-LRC tank circuits. When operating in Auto mode, it utilizes a digital regulator to sample electrical parameters such as Voltage, Current, Power Factor, and Harmonics. Then, based on predetermined parameters unique to each facility, the PQ2 regulator then activates appropriate internal stages in ladder logic response until the preset values are reached. PQ2 is equipped with a unique Self Diagnostic Feature (SDF) which identifies component status/ failure on a both per phase and per stage basis.

PQ2 is assembled using the highest quality and industrial grade components and parts available.

PQ2 is extremely reliable and virtually maintenance-free, with a 20 year life expectancy.



PQ2 Standard Features

- 1 Voltage Regulation**
Improves and stabilizes the 3 phase voltage supplied to the load, creating energy savings, improved production and uptime, and increased equipment life.
- 2 Three-Phase Current Equalization**
Real-time reduction of phase current and balancing of load over the three phases, based on X/R and Z, thereby reducing negative voltage sequence and circulating currents, resulting in energy savings and reduced equipment maintenance and failure.
- 3 Transient Voltage Surge Suppression (TVSS)**
Shields against an infinite number of surges, transients, and spikes, guarding your investment in plant equipment, while maintaining uptime.
- 4 Broadband Harmonics Mitigation**
Filters broadband harmonics, resulting in increased equipment longevity while proportionally reducing the effects of harmonics on electrical consumption. The system recovers energy used to produce the harmonic distortion in the first place, utilizing proprietary zig-zag reactor technology.
- 5 Power Factor Optimization**
Optimizes plant power factor to a nominal .95 or higher, using less capacitive reactance than a standard capacitor bank, but without any deleterious capacitor side effects. Eliminates PF penalties.
- 6 kVA Capacity Recovery**
Effectively reduces all three components of power in a balanced form. Reduces Apparent Power (kVA), Real Power (kW), and Reactive Power (kVAR), allowing loads to be added without increasing the size of transformer(s), switchgear or feed cabling.

PQ2 Optional Features

- 7 Flicker Protection**
Maintains and increases voltage in real-time, over that supplied by the utility company during temporary low-line-voltage supply.
- 8 One Second Ride-Through Protection**
Supplies continuous voltage during short duration (up to one second), intermittent supply failure and line switching.

For Further Information,

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