



SP2000

Some Additional Benefits Over Older-Generation Solutions

MODULAR DESIGN

SP2000 enables a modular approach to Power Factor Correction. For example: a facility may decide to install one SP2000 unit at a subpanel that serves HVAC motors and also to install several SP2000 units at disconnects for elevator motors or other large induction loads.

It is commonly understood that PFC is most effective when it is applied close to the load that is creating the problem. Thus, the modular approach is superior to older systems that might apply a large amount of capacitance only at the main service panel. In addition, a modular implementation of SP2000s enables even more detailed reporting and logging of system parameters, possibly down to a level of individual motors.

Of course, another advantage of this modular design is that when load parameters change because of growth or expansion it is easy to move units or to add additional units. There is no limit to the number of units that may be installed.

SOLID STATE

One of the major deficiencies of older-generation PFC devices was a very short service life because they depended on mechanical (relay) switching. Relays often fail because of arcing and burning of contacts. SP2000 is designed using modern electronic switching that has been tested to function perfectly after more than a million cycles.

The sensing and switching circuits can add or remove capacitance in as little as 2.5 seconds as needed.

Elimination of moving parts allows the manufacturer to provide a three-year warranty and to estimate a ten-year service life, that being the expected life of the capacitors themselves. NOTE: units can be taken down and shipped to the factory to be repaired or refurbished, if needed, making the actual service life likely to be several decades.

FAST SWITCHING

The extremely fast reaction that SP2000 has to changes it senses in the inductive load mean that it can much more effectively maintain a high Power Factor, even during the peak usage times that have such a disproportionate effect on electric power billing. By lowering peaks, SP2000 lowers demand charges, that often make up a very large portion of a customer's electric bill.

One of the concerns when applying Power Factor Correction is to avoid over correcting. In real-world applications the inductive loads are constantly changing and the appropriate amount of correction is changing accordingly. To avoid the risk of over correcting, a static or a slowly adjusting correction must not be too aggressive; however, with SP2000's very fast sensing and switching it can safely apply a more aggressive correction that it can rapidly remove when conditions change.

DATA LOGGING & REPORTING

Effective energy management requires accurate and detailed data. SP2000 provides exactly that and makes it available to you online whenever you wish to review it. The data can guide you to making good energy management decisions, such as scheduling peak times, balancing phase loads, and remediating harmonics, to name a few areas you might find helpful. SP2000 might even eliminate the need for expensive monitoring and reporting products to drive your energy management efforts.

PHASE LOAD BALANCING

SP2000 can actually divert power from less-loaded phases to the more-loaded phase to help lower or completely eliminate neutral line current, further reducing energy costs. This patented technology can be found only in SP2000.