



MPTS SUMMARY

Approximately one half of the electric power used in industrial and commercial enterprises is used to power electric motors. The preponderance of these motors are large multi-horsepower 3-phase induction motors. These motors produce the mechanical power that drives escalators, elevators, chillers, air handlers, and many other applications.

Reducing the current requirements of induction motors by minimizing their reactive power consumption can result in significant savings in electric power bills. Maximum Power Transfer Solutions (MPTS), from Trans Power Company (TPC), are *next-generation-power* products that reduce total electrical power demand (KVA) and carbon footprint without replacing existing (or inefficient) electrical and mechanical equipment in buildings. MPTS is patented in 28 countries.

Functionally, MPTS precisely senses the supply input and demand output, matches the electrical impedance parameters, adjusts the resonance of the resulting network loop, synchronizes and optimizes the output. This process occurs at very high speeds in the MPTS device thereby eliminating virtually all the wasted electrical power in the system.

MPTS Key Features and Benefits include:

- 1) The avoidance of overload conditions and hot spots in panels and equipment;
- 2) Reduces total electrical power and current consumption
- 3) Decreases inductive load demand by 20% to 40%;
- 4) Decreases in I^2R , kVA_r and harmonics losses;
- 5) Does not introduce a parasitic load on the electrical network;
- 6) Reduction of electrical demand, total electrical power generation (kVA) and carbon footprint without the need to replace installed equipment;
- 7) Improves power factor; impedance matching, total harmonic distortion, and delivers voltage stabilization to a level greater than installed correction equipment; and, results in the reduction of total electrical power requirements
- 8) Requires very little service (the only moving parts are cooling fans)
- 9) Provides a dynamic integrated solution that performs all Power Quality Management Tasks In virtual real-time (sample rate 20,000 samples/sec.)

MPTS Financial Benefits are significant – typically each \$200,000 investment in MPTS equipment returns \$100,000 to \$200,000 a year in cost savings.