

POWER FACTOR CORRECTION

DID YOU KNOW THAT?

..... the Powersoft amplifiers are “*Environmentally friendly*”?

In the last years the world has experienced the importance of energy, not only there have been catastrophic black-out in USA and in Europe, but as well the crazy raising of the price of oil and the daily higher request of energy of emerging countries as China together with planet overheating have catalyzed the attention on energy saving.

Show business has been always very sensitive to environmental issues and in the last years many artists have started to promote their tours as “green”, trying to use alternative energy or planting trees locally as compensation for the CO₂ produced for each concert.

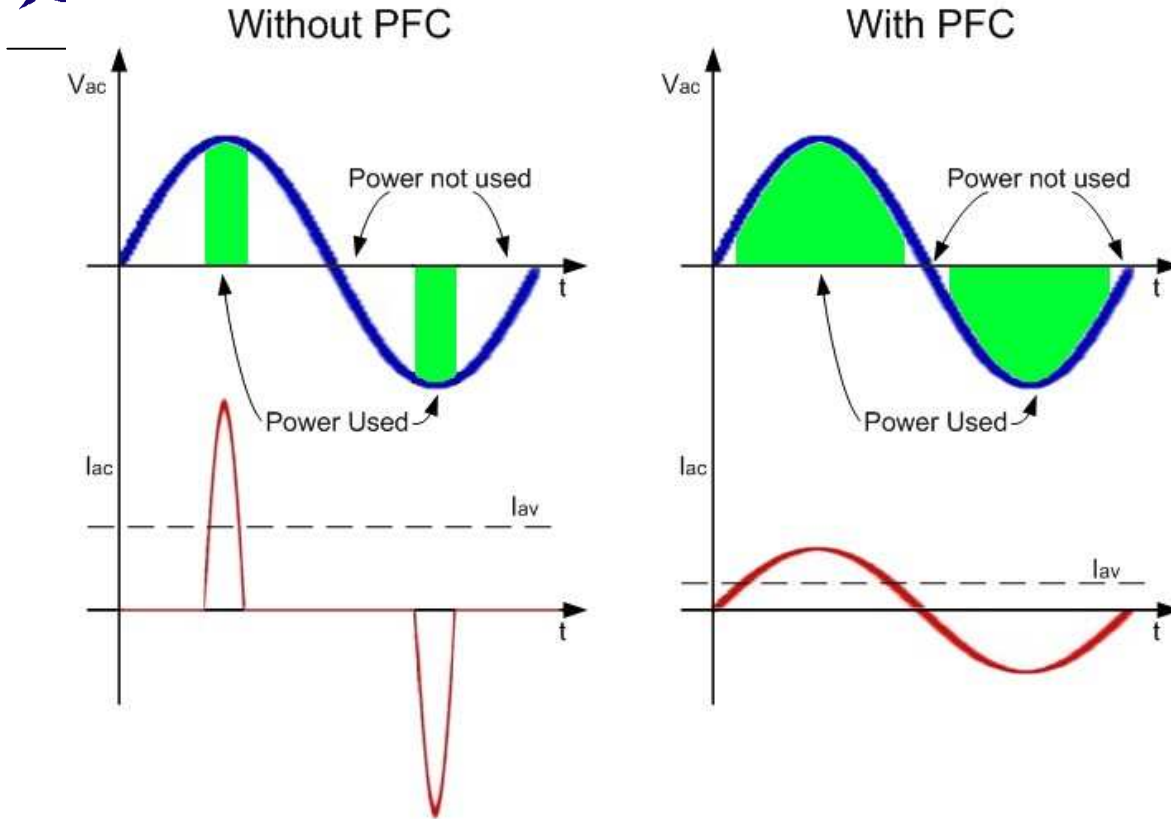
Powersoft has always been very focused in energy saving and since the birth of the company the use of the Power Factor Correction (PFC) has been a trademark for improving performance and containing mains current draw and consumption.

PFC is a mandatory technology for many business fields, as computer products, and it can really help to preserve our planet as it allows:

- energy saving with a reduction of approximately 40%;
- reduction of the size of the generators;
- a reduction of the cable sections, since lower RMS currents are reached during the use;
- less emissions on the cables because of lower harmonics of the mains frequency. This produces less hum and induced distortion because of perturbed mains;
- an audio amplifier to deliver its full output disregarding the mains voltage fluctuations and load impedance as with PFC the power supply regulates itself automatically;
- the production of a global product that is usable all over the world without the worry of differences in the mains voltage.

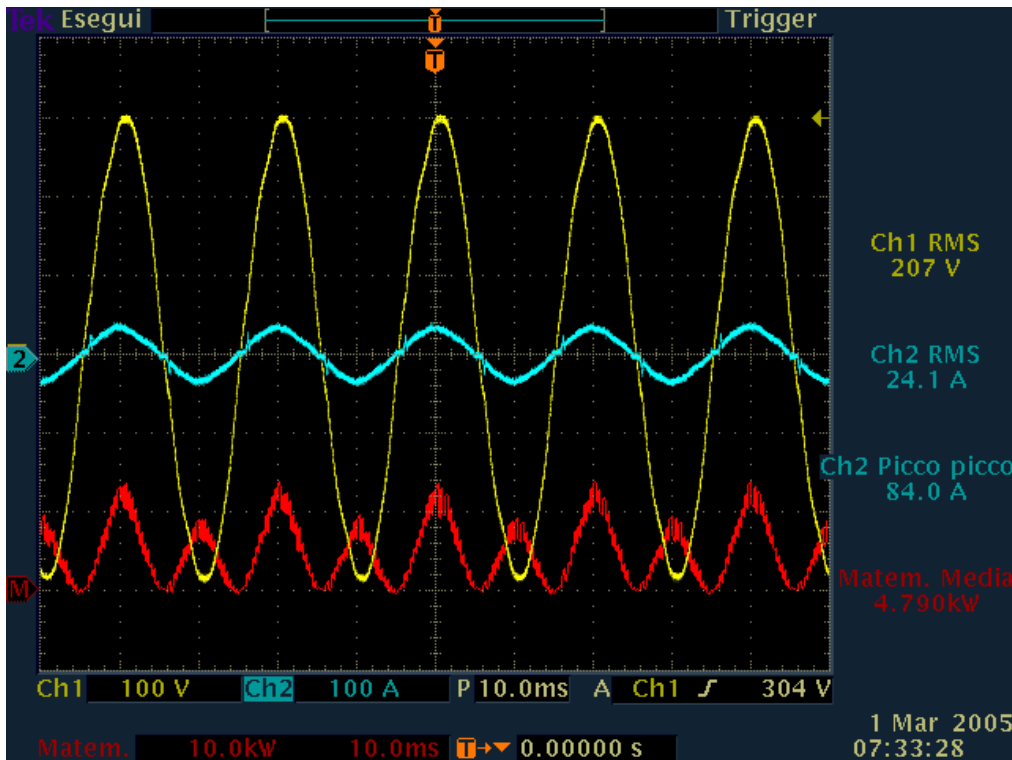
Powersoft technology proved to be a winner and many competitors are looking at PFC as next frontier while customers are demanding Powersoft amplifiers for being really able to save energy preserving sound quality.

The following images show PFC at work: a constant current request without huge peaks and harmful generation of harmonics able to perturb the mains.

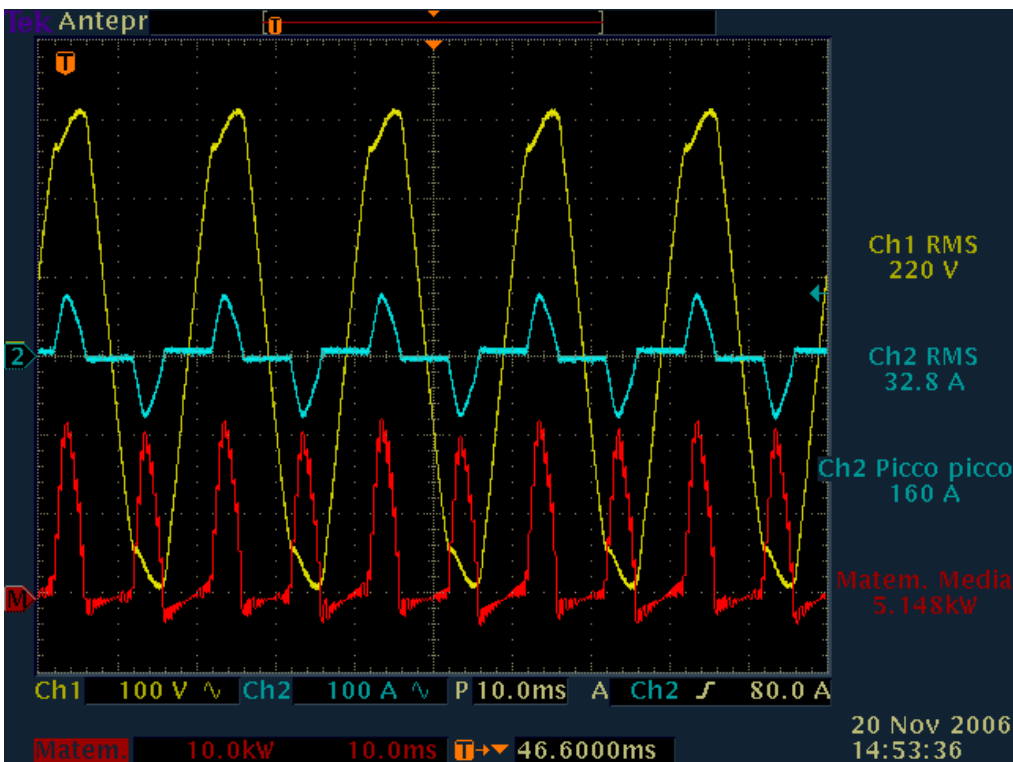


Note that mains RMS and Peak currents on the amplifier without PFC are respectively 1.5 and 2 times larger than on the Powersoft amplifier with PFC even if the two amplifiers have the same output power level.

Also the instantaneous power and the average power are considerably higher



K10 Mains Voltage / Current / Instant Power for a 2X2 Kw output power



Competitor Mains Voltage / Current / Instant Power for a 2X2 kW output power

Here summarized the advantages related with the use of the PFC in Powersoft amplifiers:

- Stable performances and independent from the mains (very useful in countries where the mains quality is below standards)
- Highest Power Density
- Lighter Weight
- Higher Reliability
- Reduced circuit components stress by supplying well-regulated DC
- World Wide Range Operation (from 90 to 265 Vdc, 50/60 Hz)
- Higher Efficiency
- Lower power request reduces copper losses of the electrical service
- Significant reduction in required electrical supply capacity
- Significant saving of energy cost
- Cooler operation for a reduced air conditioning necessities in fixed installations