Amorphous and high-frequency inverters

Amorphous magnetic cores allow smaller, lighter and more energy efficient designs in many high frequency applications for Invertors, UPS, ASD (Adjustable speed drives), and Power supplies (SMPS).

While Amorphous cores remain vital in large-power filtering and lower-frequency applications due to their high saturation flux density and cost advantages, Nanocrystalline cores are ...

The inverters with W / L = 5 exhibit a superior voltage gain as high as 1190, and simultaneously an uncertainty level of only 80 mV, which are, to the best of the authors" knowledge, ...

Wide bandgap semiconductor devices enable inverters with higher switching and output frequencies. This poses more challenges to obtain high-quality output wavef.

A class of single-stage multi-input Buck type high-frequency links inverters with series and simultaneous power supply are proposed in this paper, and the key technologies such as circuit ...

This paper focuses on the measurement and analysis of the vibration and noise of a 5kVA/4.5 kHz amorphous high-frequency transformer (HFT) under sinusoidal and non-sinusoidal ...

Test systems using high-voltage, high-frequency transformers have proven versatile and easy to realise. The authors investigate the application of amorphous cut cores in such transformers.

This paper introduces a new inverter architecture and control approach that directly addresses this challenge, enabling radio-frequency power delivery into widely variable loads while maintaining ...

Nanocrystalline magnetic cores, due to the added controlled annealing process, have a relatively higher cost but offer superior high-frequency performance and temperature stability, making ...

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