

## Harmonics Filter for Magnetic Amplifiers

### Disclosure Number

201403297

### Technology Summary

The invention relates to magnetic amplifiers and more specifically to an apparatus and method of filtering unwanted harmonics from such amplifiers. The cancelation of the induced ac voltages in the dc circuit of the magnetic amplifier is complete only if the ac flux is perfectly sinusoidal, no matter the connection. However, due to the nonlinearity of the magnetic circuit at or near the point of saturation, the flux cannot stay sinusoidal and will contain harmonics (components with higher order frequencies). An elegant solution for the harmonics problem has been found in a form of an auxiliary winding.

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