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true power factor & THD of variable speed drives

Respecting copyrights, I like to refer to the article that is available free-of-charge at <http://www.appliancedesign.com/articles/94627-the-impact-of-variable-speed-drives-on-el>

It deals with non-linear loads rather than just inductive loads.

My summary was:

An electrical systems design process should always include a judgment about THDi. Non-linear current draw causes non-linear voltage drop across the power source impedance. The engineer either specifies a suitable power supply and low impedance distribution system or encounters added cost for mitigation on all non-linear loads. A harmonic current emission limit stricter than EN 61000-3-2 and EN 61000-3-12 prevents the use of proven, standard PDS, may increase their size and weight, may reduce their maximum output, and therefore jeopardizes the cost savings potential from variable speed systems.