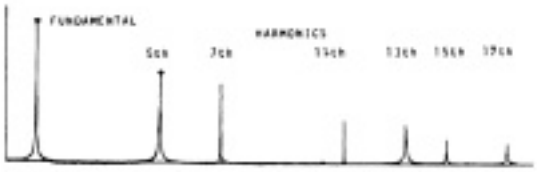
Guard-Ac™

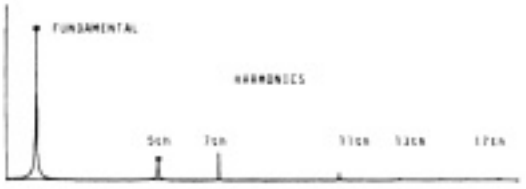
HARMONIC REDUCTION

Because all standard Guard-AC reactors are compensated for harmonics (current and frequency), they are extremely effective at reducing the amount of harmonics which are produced by a drive/inverter. Use 5% impedance, harmonic compensated reactors for best reduction of harmonic distortion.

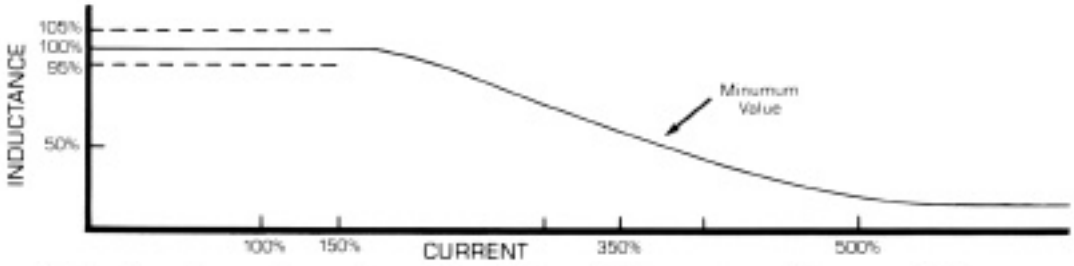
Typical Harmonic Distortion of PWM Inverter without Reactor



Typical Harmonic Distortion with 5% Impedance Reactor



Reactor Linearity Curve



This curve illustrates the extreme linearity of Guard-AC reactors. Even at 150 percent of their current rating, these reactors still have 100% of their nominal inductance. This assures maximum filtering of distortion even in the presence of severe harmonics and best absorption of surges. The tolerance on rated inductance is plus-or-minus 5 percent.

YOU BENEFIT FROM THESE UNIQUE FEATURES

- **HARMONIC COMPENSATION** makes Guard-AC reactors suitable for use on either the drive input or drive output. They are designed to carry full rated fundamental current plus handle current and frequencies associated with harmonics—up to 50 percent more.
- **TERMINALS** are provided as standard to save installation cost and minimize panel space. Finger proof terminals are provided through 80 amps, solid copper box lugs above that to 600 amps.
- **EPOXY IMPREGNATION** minimizes audible noise in the reactor and enhances its structural integrity.
- **SHORT CIRCUIT PROTECTION** is increased because coils are wound with a high number of turns to maximize the air core inductance of the reactor.
- **LOW TEMPERATURE RISE** and low watts loss are achieved through our unique design. This means that heat dissipation requirements are reduced and system efficiency is improved.
- **HIGH SATURATION CURRENT RATING** of Guard-AC reactors maximizes their surge current protection capability. Guard-AC reactors absorb many of the power line disturbances which cause nuisance trips on drives or circuit breakers.

Toll Free 1-800-526-5376 • 201-337-1000 • Fax 201-337-1862