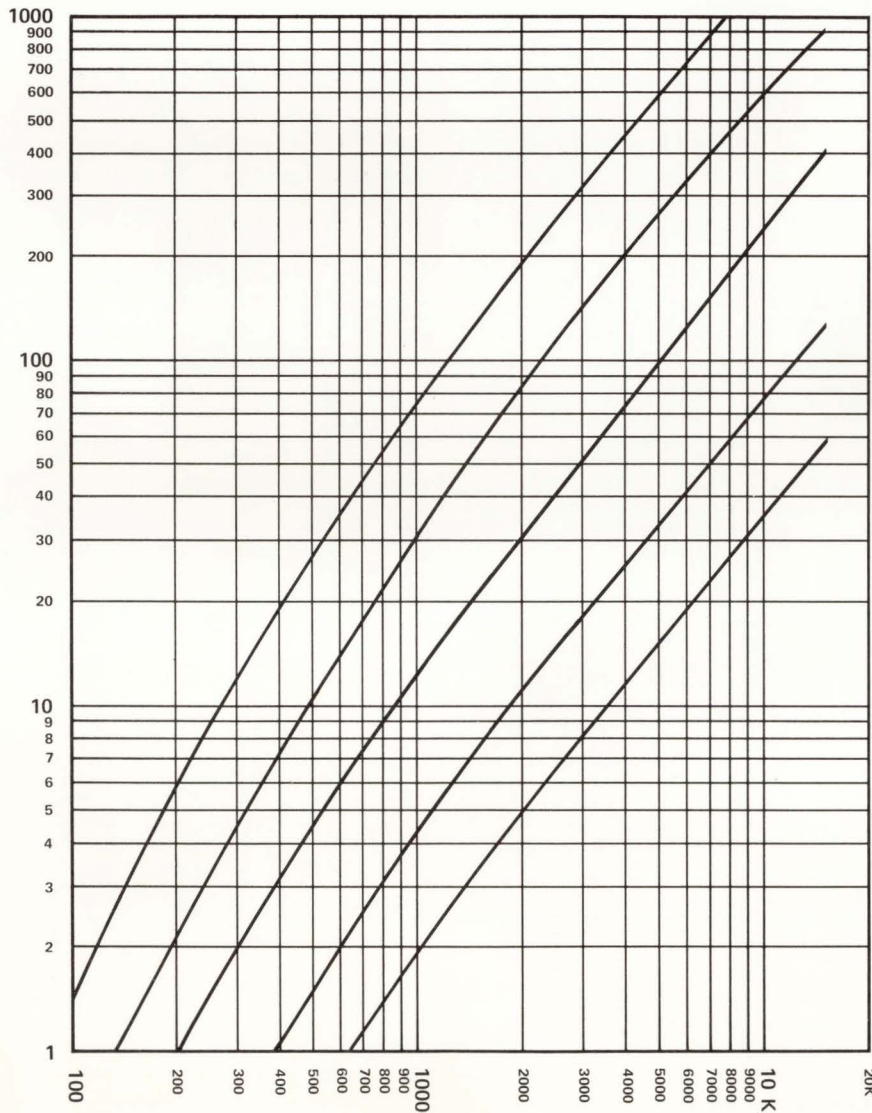


HIGH FREQUENCY CORE LOSS CURVES

for

NICKEL-IRON STRIP WOUND CORES



HIGH FREQUENCY CORE LOSS CURVES for Nickel - Iron Strip Wound Cores

Supplementing the Magnetics Inc. tape wound and bobbin core design manuals, are the core loss curves presented here.

This data was obtained by recording the voltage and current waveforms across a one-turn winding on a representative miniature tape-wound core. By computer programming, the voltage and current waveforms were multiplied, and a power waveform was obtained; the average of this waveform was the power lost in the core. This power loss was then converted to watts per pound by the formula:

$$\frac{\text{Power loss}}{\text{Core weight}} = \text{Watts/lb.}$$

The flux density level was determined by the integration of the voltage waveform.

These curves do not represent maximum or minimum values, but rather typical losses one might expect from ultra-thin, nickel alloy tape wound cores.

Additional design information can be obtained from Tape Wound Core Manual, TWC-300 or Bobbin Core Catalog, BC-303R.

