Core Selector Charts

The core selector charts are a quick guide to finding the optimum permeability and smallest core size for DC bias applications. These charts are based on a permeability reduction of not more than 50% with DC bias, typical winding factors of 40% for toroids and 60% for shapes, and an AC current that is small relative to the DC current. These charts are based on the nominal core inductance and a current density 500-600 A/cm².

If a core is being selected for use with a large AC current relative to any DC current, such as a flyback inductor or buck/boost inductor, frequently a larger core will be needed to limit the core losses due to AC flux. In other words, the design becomes loss-limited rather than bias-limited.

For additional power handling capability, stacking of cores will yield a proportional increase in power handling. For example, double stacking of the 55908 core will result in doubled power handling capability to about 400 mH·A².

Cores with increased heights are easily ordered. Contact Magnetics for more information.
Core Selector Charts

MPP Toroids

High Flux Toroids
Core Selector Charts

Kool Μμ® Toroids

XFlux® Toroids
Core Selector Charts

Kool Mu® MAX Toroids

XFlux® E Cores