

Calculating Winding Tables

Date: 2026-01-12

Winding tables are used for loading coils or transformer windings.

Select target inductance L and core form dimensions.

For air-core solenoid: $L(\mu\text{H}) = (r^2 * N^2) / (9r + 10l)$.

Solve for turns N and calculate turn spacing for uniform winding.

If using ferrite, use AL value: $L(n\text{H}) = AL * N^2$.

Create a table of N vs L for common tap points (e.g., 10, 20, 30 turns).

Include wire gauge, diameter, and maximum current rating.

Validate inductance with an LCR meter when possible.