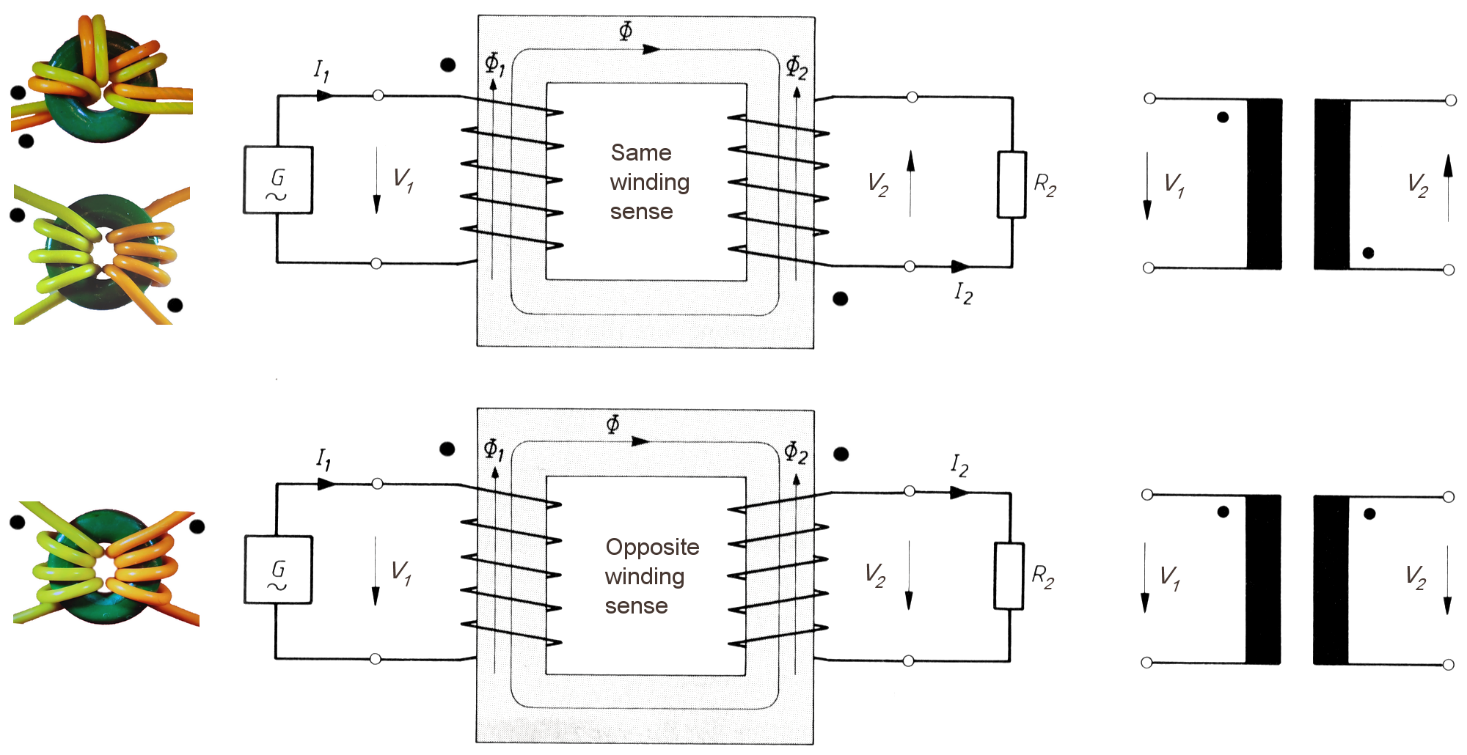
**Transformer**



**Dot convention for the winding sense**

When a current enters the dot, then it circles around the total flux Φ in the same sense. It follows that at the dots, the voltages are of the same polarity.

**Transformer equations**

The net flux is always Φ = Φ1 + Φ2 (with a load attached the load-generated Φ2 is canceled by Φ1):

Because of the conservation of energy, it follows:

The input impedance is calculated like: