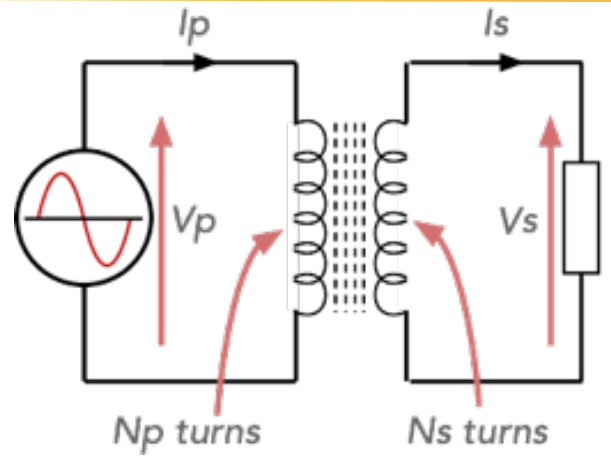


# The Transformer



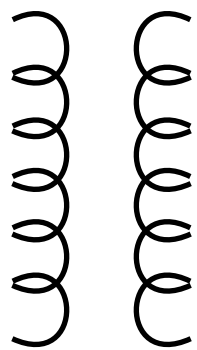
Typical mains transformer



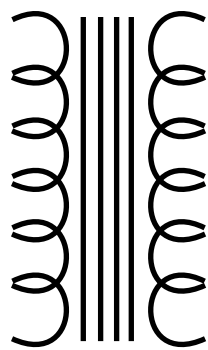
$$V_s = V_p \frac{N_s}{N_p}$$

$$I_s = I_p \frac{N_p}{N_s}$$

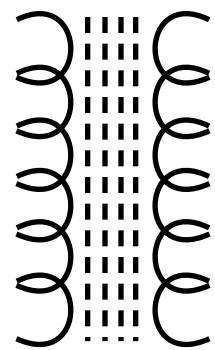
## Circuit Symbols



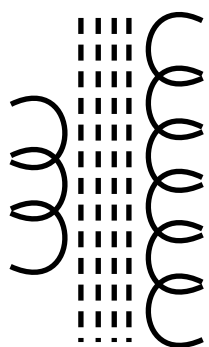
Air cored transformer



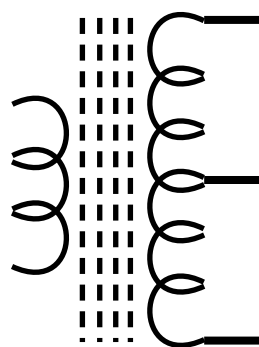
Iron / laminated cored transformer



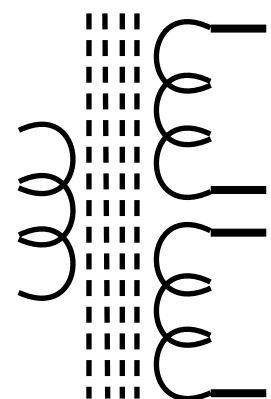
Ferrite cored transformer



Step-up transformer



Centre-tapped transformer



Dual secondary transformer