

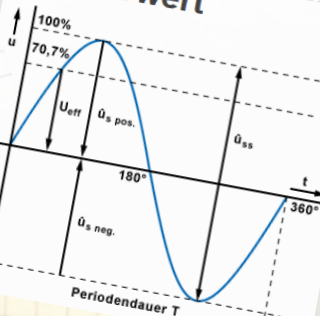
VON DER THEORIE ZUR PRAXIS MIT INP

Dreieckschaltung:

$$U_{1, \text{wicklung}} = U_{U, IV} = U_{N, I} = U_{1, \text{verk}}$$

$$I_{1, \text{wicklung}} = \frac{I_N}{\sqrt{3}} = \frac{I}{\sqrt{3}}$$

Effektivwert



Ohm'sches Gesetz

$$U = R \cdot I$$

Maxwell-Gleichungen

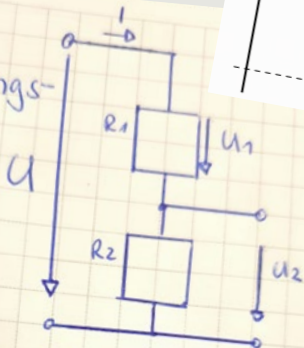
$$1) \oint_S \vec{H} d\vec{s} = \int_A (\vec{j}_L + \frac{\partial \vec{D}}{\partial t}) d\vec{A} \hat{=} \vec{\nabla} \times \vec{H} = \vec{j}_L + \frac{\partial \vec{D}}{\partial t}$$

$$2) \oint_S \vec{E} d\vec{s} = \int_A -\frac{\partial \vec{B}}{\partial t} d\vec{A} \hat{=} \vec{\nabla} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

$$3) \oint_A \vec{D} d\vec{A} = \int_V \rho dv \hat{=} \vec{\nabla} \cdot \vec{D} = \rho$$

$$4) \oint \vec{B} d\vec{A} = 0 \hat{=} \vec{\nabla} \cdot \vec{B} = 0$$

Spannungsteiler



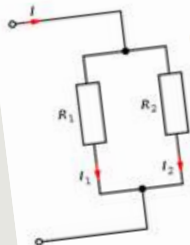
$$P = UI$$

$$\frac{U_1}{U_2} = \frac{R_1}{R_2} \quad \frac{U}{U_1} = \frac{R_1 + R_2}{R_1} \quad \frac{U}{U_2} = \frac{R_1 + R_2}{R_2}$$

$$U = U_1 + U_2$$

Kapazität
 $C = I \times t$ in
Entladung
 $t = \frac{C}{I}$

Stromteiler:



Pythagoras:
 $a^2 + b^2 = c^2$

$$\frac{I_2}{I_1} = \frac{R_1}{R_2} \quad \frac{I_1}{I} = \frac{R_1 || R_2}{R_1} \quad \frac{I_2}{I} = \frac{R_1 || R_2}{R_2} \quad I = I_1 + I_2$$

Sternschaltung

$$U_{2, \text{wicklung}} = \frac{U_{2, \text{verk}}}{\sqrt{3}} = U_2$$

$$I_{2, \text{wicklung}} = I_{2L} = I_2$$

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