

Formule i konstante

$$\boxed{\varepsilon_0 = 8,85 \cdot 10^{-12} \text{ F m}^{-1}}$$

$$\varepsilon = \varepsilon_0 \varepsilon_r$$

$$E = \frac{U}{d}$$

$$D = \frac{Q_{max}}{S} = \varepsilon E$$

$$C = \varepsilon \frac{S}{d}$$

$$C = \frac{Q}{U}$$

$$W_C = \frac{U \cdot Q}{2}$$

$$\boxed{\mu_0 = 4 \cdot \pi \cdot 10^{-7} \text{ H m}^{-1}}$$

$$H = \frac{I}{2 \cdot r \cdot \pi}$$

$$H = \frac{N \cdot I}{l}$$

$$\Phi = B \cdot S$$

$$B = \mu H$$

$$\mu = \mu_0 \mu_r$$

$$F = I \cdot B \cdot l$$

$$F = v \cdot B \cdot Q$$

$$R_m = \frac{l}{\mu \cdot S}$$

$$\Theta = N \cdot I = \Phi \cdot R_m$$

$$e_i = Blv$$

$$e_i = -N \frac{\Delta \Phi}{\Delta t}$$

$$L = \frac{\mu S N^2}{l}$$

$$M = \sqrt{L_1 \cdot L_2}$$

$$u_s = L \frac{\Delta i}{\Delta t}$$

$$e_{M1} = -M \frac{\Delta i_2}{\Delta t}$$

$$X_L = \omega L, \quad X_C = \frac{1}{\omega C}$$

$$B_L = \frac{1}{X_L}$$

$$B_C = \frac{1}{X_C}$$

$$G = \frac{1}{R}$$

$$Y = \frac{1}{Z}$$

$$U = IZ$$

$$I = UY$$

$$U_R = I_R R$$

$$I_R = UG$$

$$U_L = I_L X_L$$

$$I_L = U_L B_L$$

$$U_C = I_C X_C$$

$$I_C = U_C B_C$$

$$u(t) = U_m \sin(\omega t + \varphi)$$

$$i(t) = I_m \sin(\omega t + \varphi)$$

$$\omega = 2\pi f$$

