
Formulário

$$L = \frac{N\phi}{i} \quad \phi = \int \vec{B} \cdot d\vec{A} \quad V_L = -L \frac{di}{dt} \quad \varepsilon = -\frac{d\phi_B}{dt} \quad q(t) = \varepsilon C (1 - e^{-t/RC})$$

$$i = \frac{\varepsilon}{R} (1 - e^{-\frac{Rt}{L}}) \quad i = i_0 e^{-\frac{Rt}{L}} \quad U_L = \frac{1}{2} L I^2 \quad U_C = \frac{1}{2C} q^2 \quad C = \frac{q}{V}$$

$$X_L = \omega L \quad X_C = \frac{1}{\omega C} \quad \omega_r = \frac{1}{\sqrt{LC}} \quad Z = \sqrt{R^2 + (X_L - X_C)^2} \quad \tan \phi = \frac{X_L - X_C}{R}$$

$$\varepsilon = \varepsilon_m \sin(\omega t) \quad i = i_{\max} \sin(\omega t - \phi) \quad q(t) = q_{\max} \cos(\omega t + \phi)$$

$$V_{R\max} = R I_{\max} \quad V_{rms} = \frac{V_{\max}}{\sqrt{2}} \quad I_{rms} = \frac{\varepsilon_{rms}}{Z} \quad V_{L\max} = X_L I_{\max} \quad V_{C\max} = X_C I_{\max}$$

$$P_{med} = I_{rms}^2 \cdot R = \varepsilon_{rms} \cdot I_{rms} \cdot \cos \phi$$
