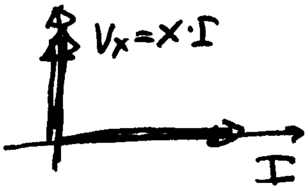
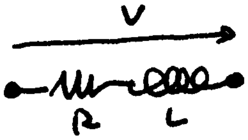
$\underline{\omega L}$ indicata con $\underline{X_L}$ prende il nome di reattanza induttiva. Invece di grandezze vettoriali si usano valori efficaci

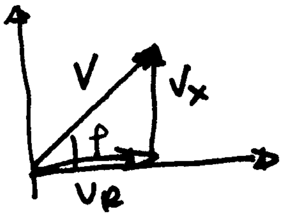
$$I = \frac{I_M}{\sqrt{2}} \qquad V = \frac{V_M}{\sqrt{2}}$$

$$\vec{V}_x = jX\vec{I}$$

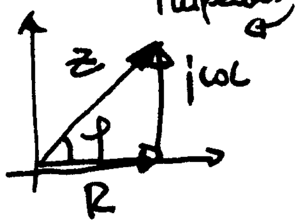


Circuito ohmico-induttivo



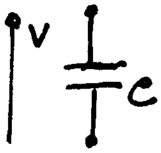


Triangolo di impedenza



$$\vec{V}_R = R \cdot \vec{I} \qquad \vec{V}_x = jX\vec{I} \qquad X = \omega L \quad Z = R + j\omega L$$

impedenza $Z = \sqrt{R^2 + X^2} \qquad \operatorname{tg}\varphi = \frac{X}{R}$

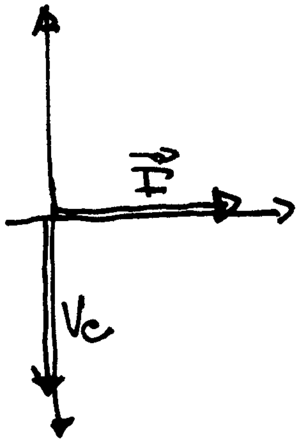


$$q = C \cdot V \qquad i = \frac{dQ}{dt} \qquad i = C\frac{dV}{dt}$$

in alternata: $\vec{V} = Ve^{j\omega t} \qquad \vec{I} = \frac{d}{dt}\vec{V}(t) \cdot C = C\frac{d}{dt}\left[Ve^{j\omega t}\right] = j\omega C Ve^{j\omega t}$

$$= j\omega C\vec{V}$$

$$\frac{\vec{I}}{j\omega C} = \vec{V} \qquad X_C = \frac{1}{j\omega C}$$



X_C = reattanza capacitiva = reazione dielettrica di C

alternanza di carica e scarica in C

corrente in C in anticipo di 90° su V_C

in termini di valori efficaci

$$I = \frac{V_C}{\frac{1}{\omega C}} \qquad \text{Potenza reale} = 0$$