

ELETTROTECNICA

$$W_{\mu} = \frac{1}{2} L_{11} I_1^2 + \frac{1}{2} L_{22} I_2^2 + L_M I_1 I_2$$

$$W_L = \frac{1}{2} L I_L^2$$

$$L_M = M = K \sqrt{L_1 L_2}$$

$$W_C = \frac{1}{2} C V_C^2$$

$$P = R \cdot I^2 = V \cdot I = \frac{V^2}{R}$$

$$V = R \cdot I \Rightarrow I = \frac{V}{R}$$

$$P_{MAX} = \frac{E_0^2}{4 R_0^2}$$

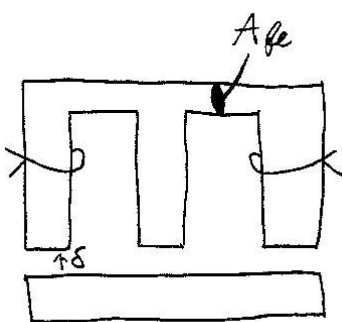
R_L per avere P_{MAX} è R equivalente di Thevenin

$$L = \frac{\Psi}{I} = N^2 \cdot \Lambda_{eq} = \frac{N^2}{\theta_{eq}}$$

θ_{eq} è la riluttanza equivalente vista dal generatore di fmm

$$\Lambda_{eq} = \mu_0 \cdot \frac{A_{fe}}{\delta}$$

$$U_K = \theta \cdot \Phi_K \Leftrightarrow \Lambda \cdot U_K = \Phi_K$$

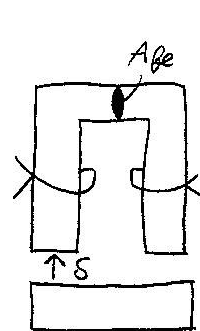


se $\delta_1 = \delta_2 = \delta_3$

$$L_{11} = N_1^2 \frac{2}{3} \Lambda_{\delta}$$

$$L_{22} = N_2^2 \frac{2}{3} \Lambda_{\delta}$$

$$L_M = N_1 N_2 \frac{\Lambda_{\delta}}{3}$$

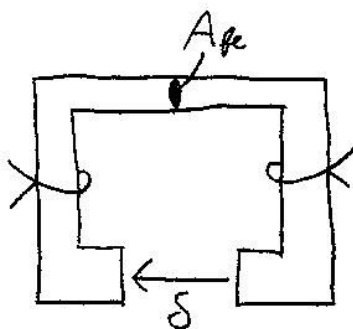


$$\Lambda_{11} = \Lambda_{22} = \frac{\Lambda_{\delta}}{2}$$

$$L_{11} = N_1^2 \frac{\Lambda_{\delta}}{2}$$

$$L_{22} = N_2^2 \frac{\Lambda_{\delta}}{2}$$

$$L_M = N_1 N_2 \frac{\Lambda_{\delta}}{2}$$



$$L_{11} = N_1^2 \Lambda_{\delta}$$

$$L_{22} = N_2^2 \Lambda_{\delta}$$

$$L_M = N_1 N_2 \Lambda_{\delta}$$