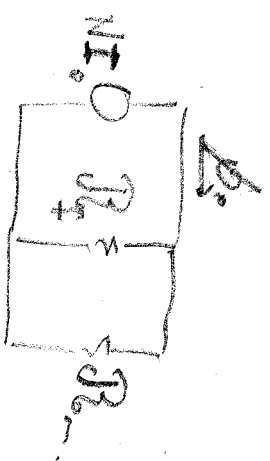
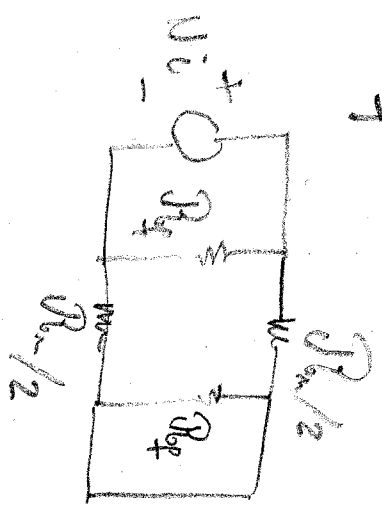
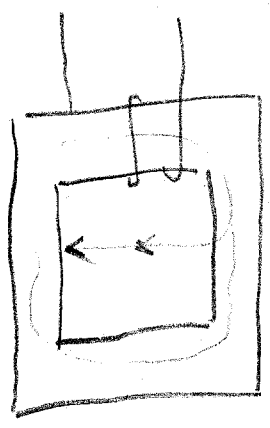


- Ejercicio Vacío - Tref. Homop.

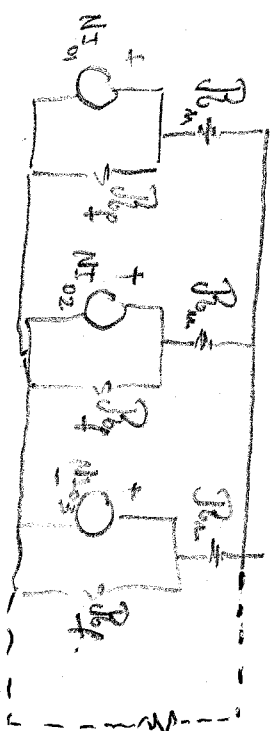
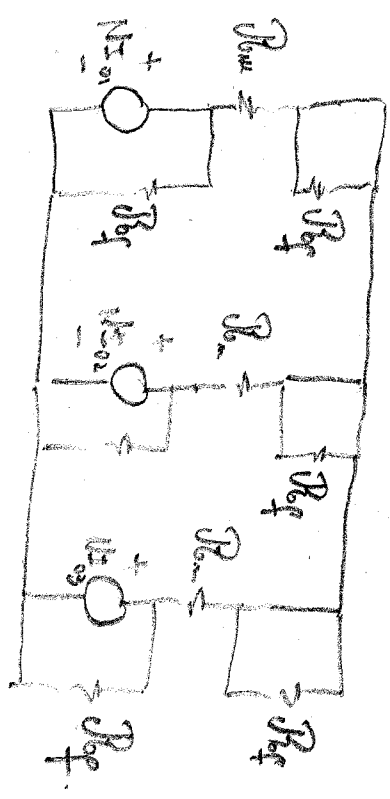


$R_g // R_m \approx R_m$

$R_g = \frac{2}{\mu S}$   
 $R_m = \frac{2}{\mu S}$

$\phi_0 = \phi_M = \frac{U_i}{N \omega_m} \rightarrow$  dado  $U_i$  se tiene  $\phi_0 \Rightarrow I_0 = \frac{R_m \phi_0}{N}$

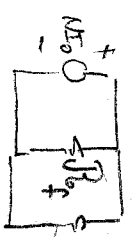
Ejercicio Vacío tref. 3 fases.



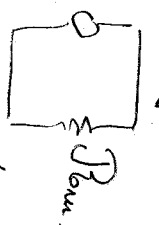
$R_m$  Hierro (3 columnas)  
 $R_g$  Hierro (4-5 columnas)

- Fuente Directa y Inversa  $\Rightarrow$  por  $R_g$  no circula flujo

cada fase.



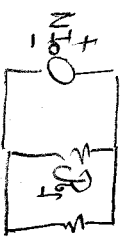
$R_m \approx R_m$



$L_m = \frac{N^2}{R_m}$

- Fuente Homopolar  $\Rightarrow$  por  $R_g$  circula 3Φ

cada fase:

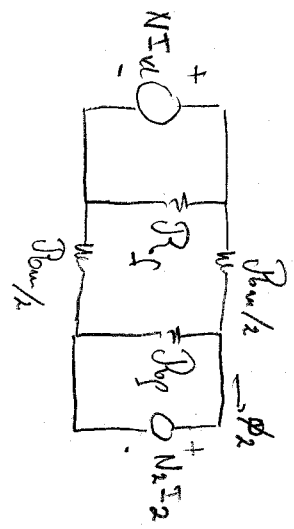


$R_m + R_g$

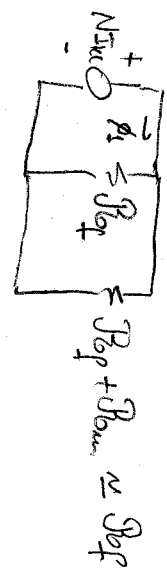
$L_{m0} = \frac{N^2}{R_m + R_g}$   
 $\Rightarrow L_{m0} < L_m$

Inductancia de Vicio Homopolar < Inductancia de Vicio Directa o Inversa

E mismo Cortocircuito Tipo Monof



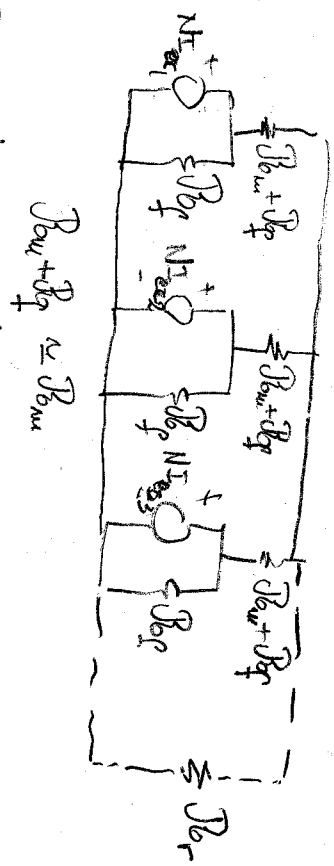
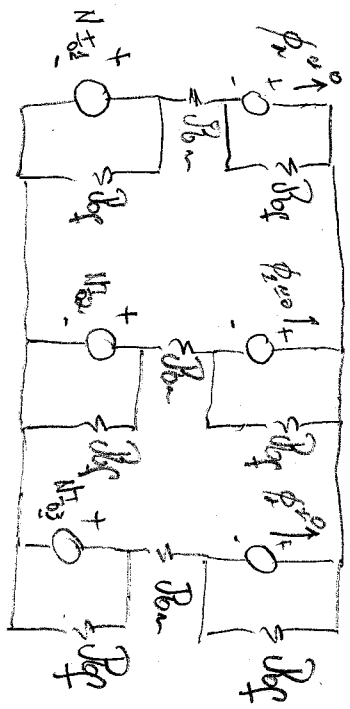
$$R_2 \approx 0 \Rightarrow \phi_2 \approx 0$$



Dado  $U_w \Rightarrow \phi_1 = \frac{U_w}{N_1 I_{1a}}$  Autofuerzas:

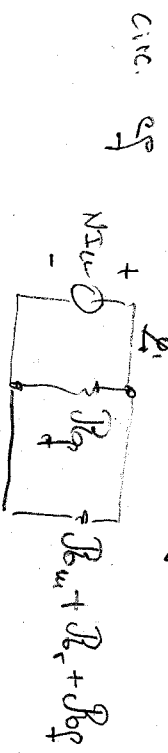
$\frac{R_f}{2} \phi_1 = N_1 I_{1a} \Rightarrow$  corriente del # e mismo determinada

E mismo Cortocircuito caso Trifasico



$$L_{a0} < L_{aD1}$$

- 1 Fuente Directa e Inversa  $\Rightarrow$  No hay flujo por  $R_r \Rightarrow$  por  $I_{2a0} = \frac{U_w}{R_f}$
- 2 Fuente Homopolar  $\Rightarrow$  Hay flujo por  $R_r$



$$R_{eq}^D = \frac{R_f}{2}$$

Dado  $U_w \Rightarrow$  Determinado  $\phi_1 \Rightarrow$  Se necesita mas corriente que en el caso 1 para el mismo flujo. #

$$X_{e0} = \frac{U_w}{I_{2a0}}$$