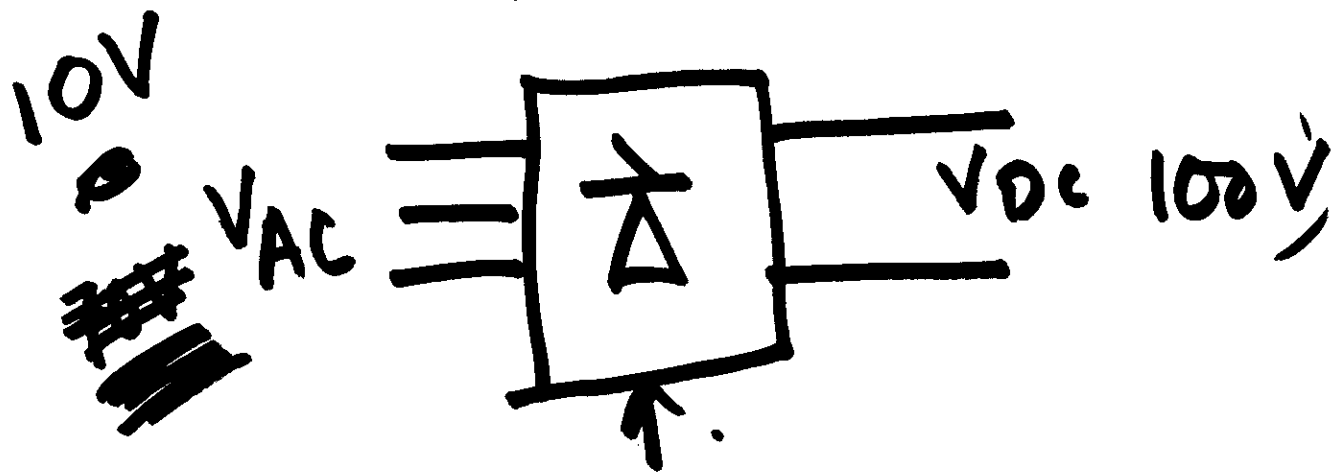
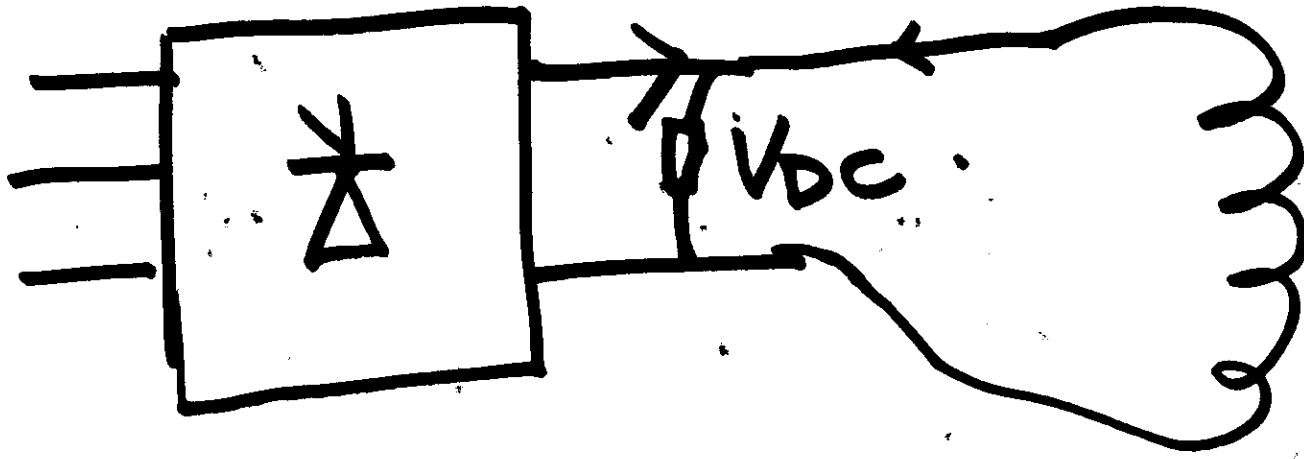


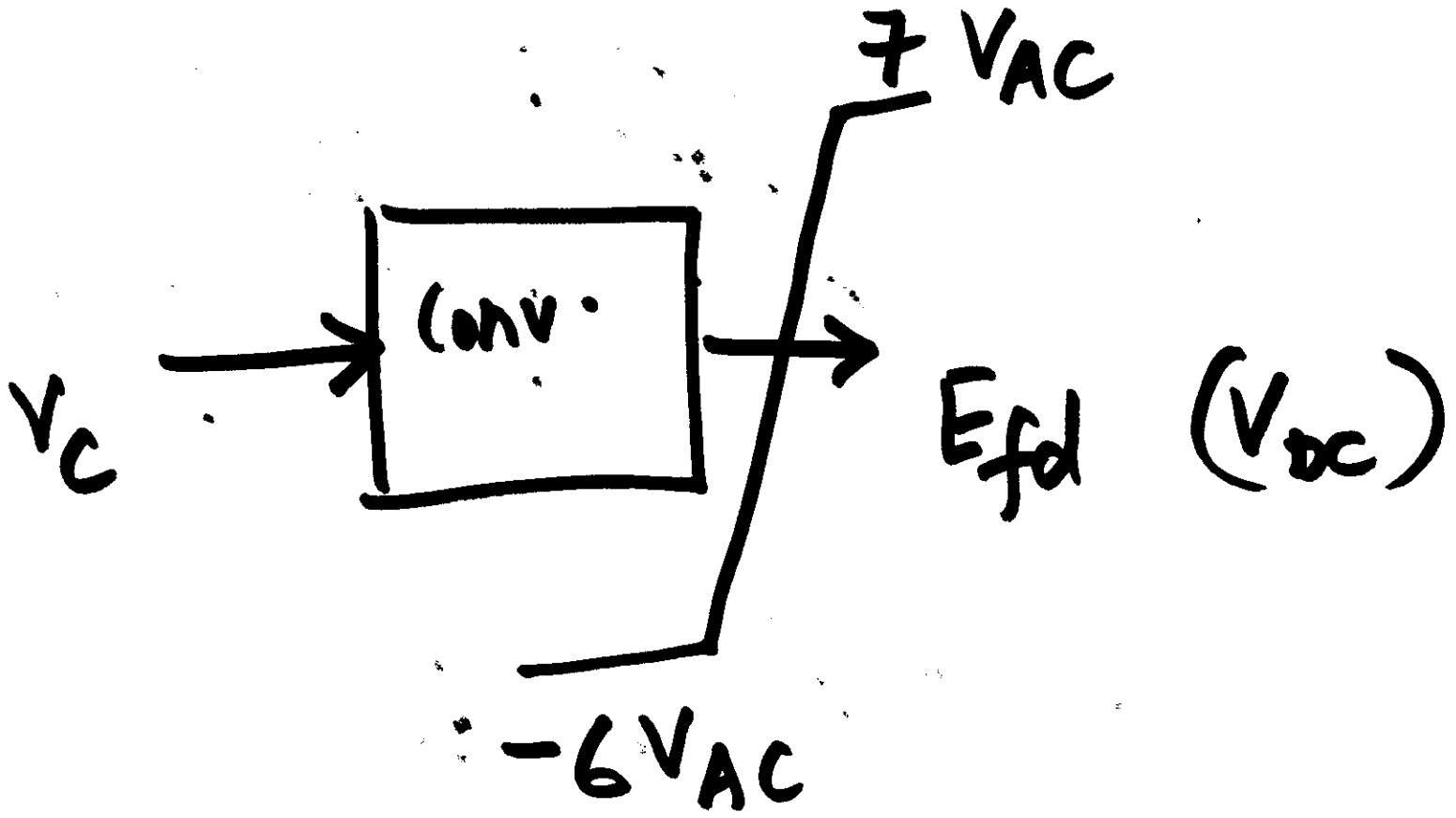
$V_{AC}$  ← derived

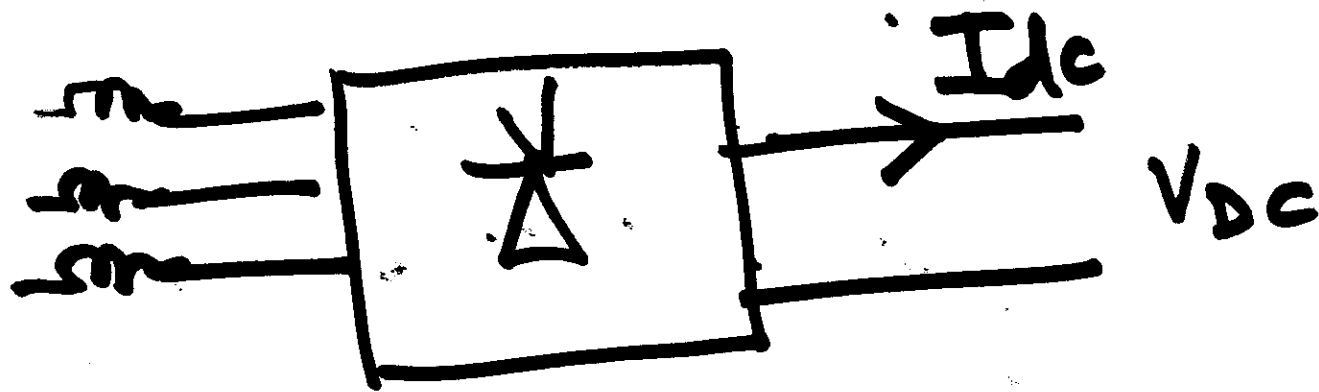


V<sub>AC</sub>

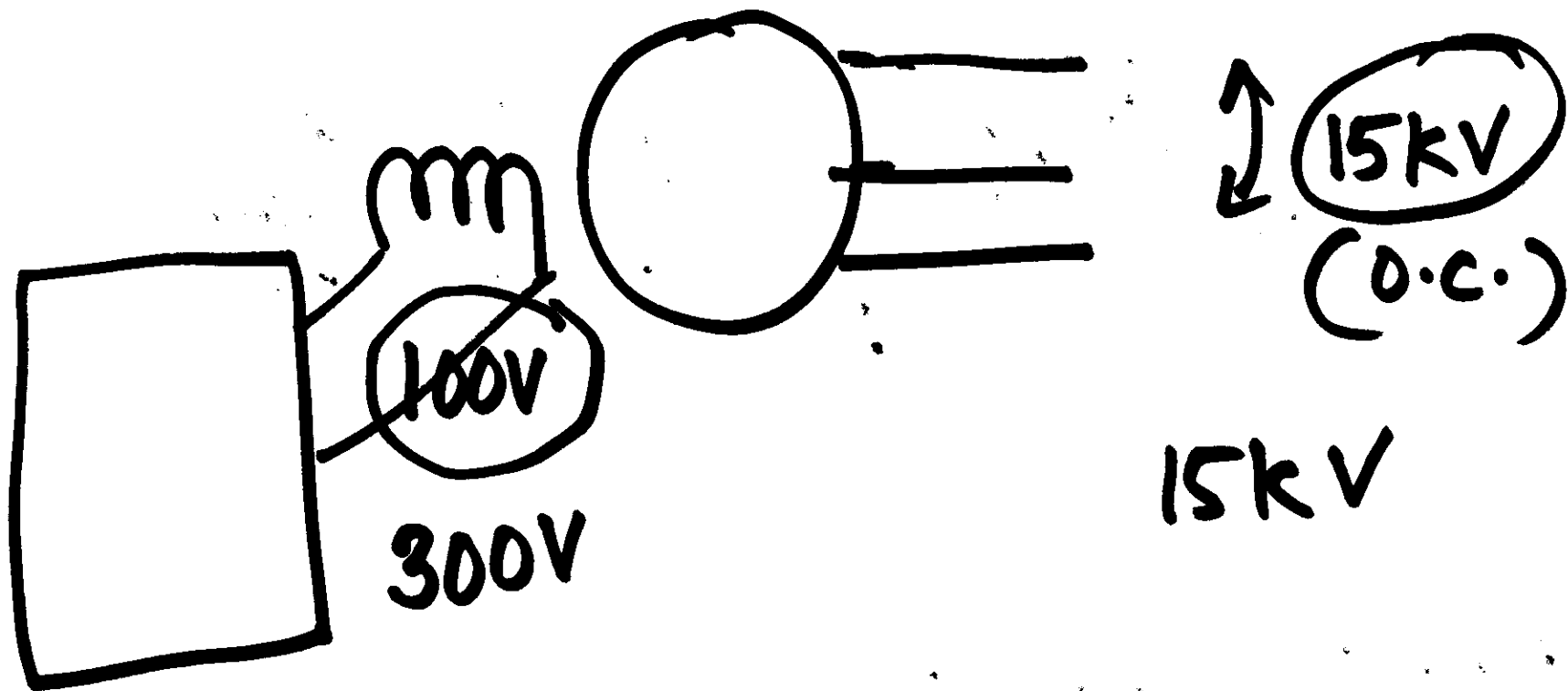


$$V_{DC} = 1.35 V_{AC} \cos \alpha .$$



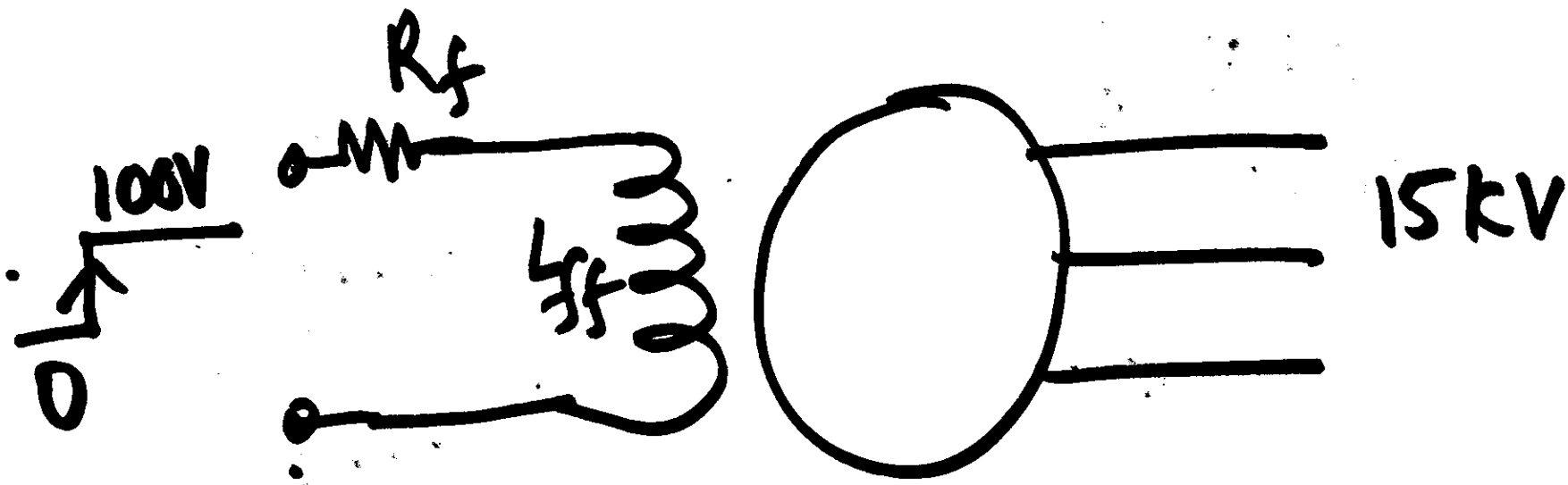


$$V_{DC} = 1.35 V_{AC} \cos \alpha - K I_{dc}$$



600V ?

(for a short time)

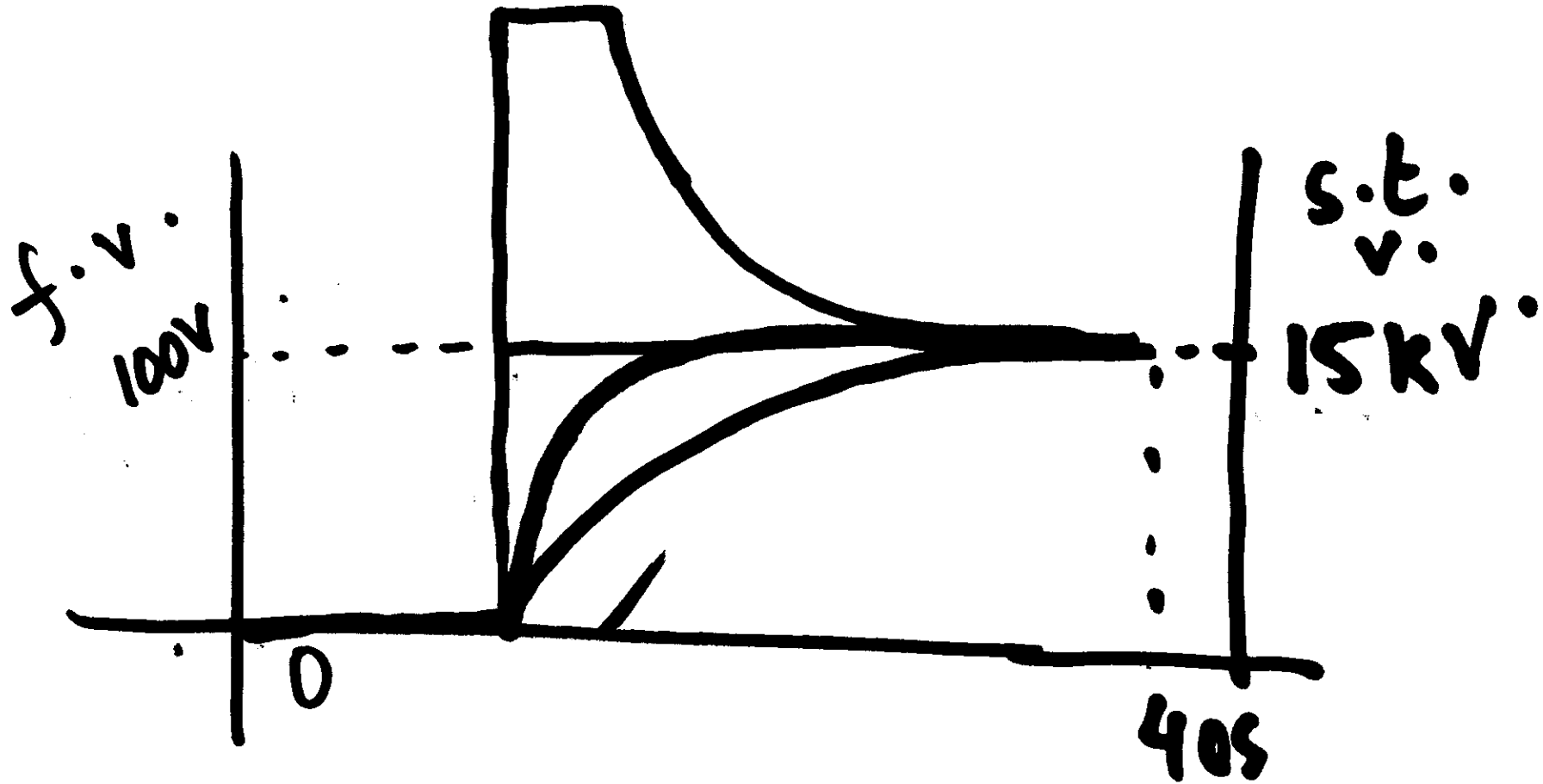


$$L_f / R_f \} \underline{10s.}$$

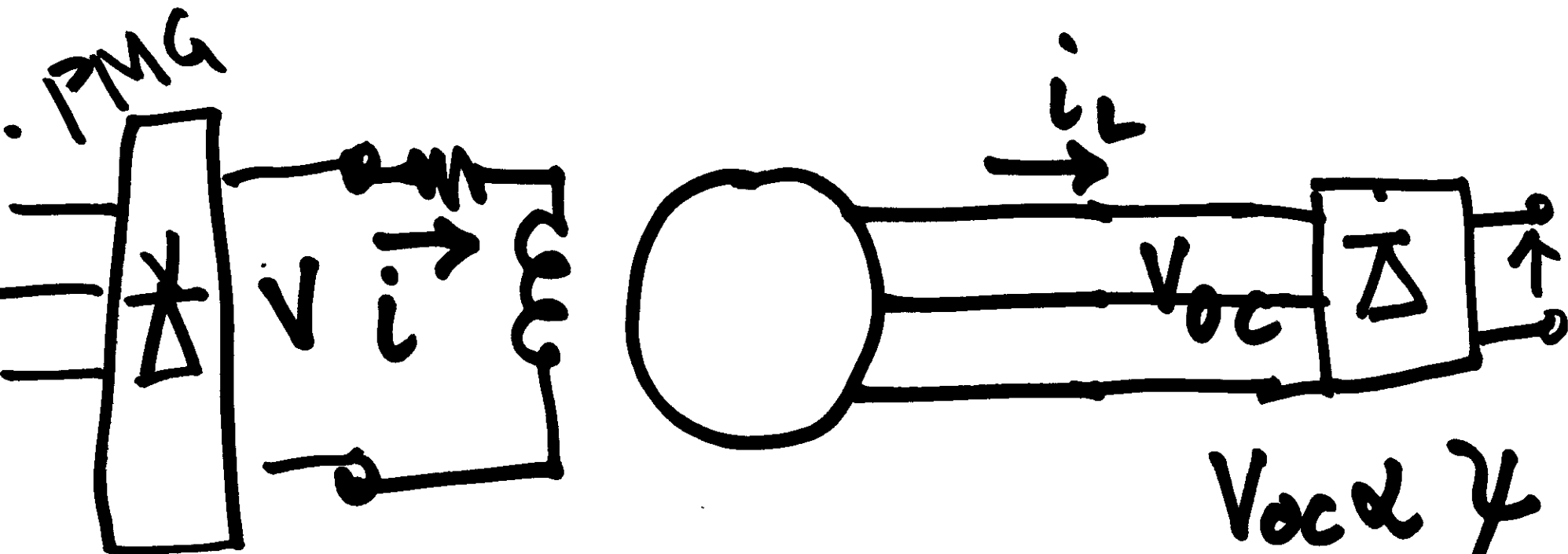
40s  
 ~~~~~

210 MW

1000 A , 100 V } no load  
3000 A      300 V } Under full.







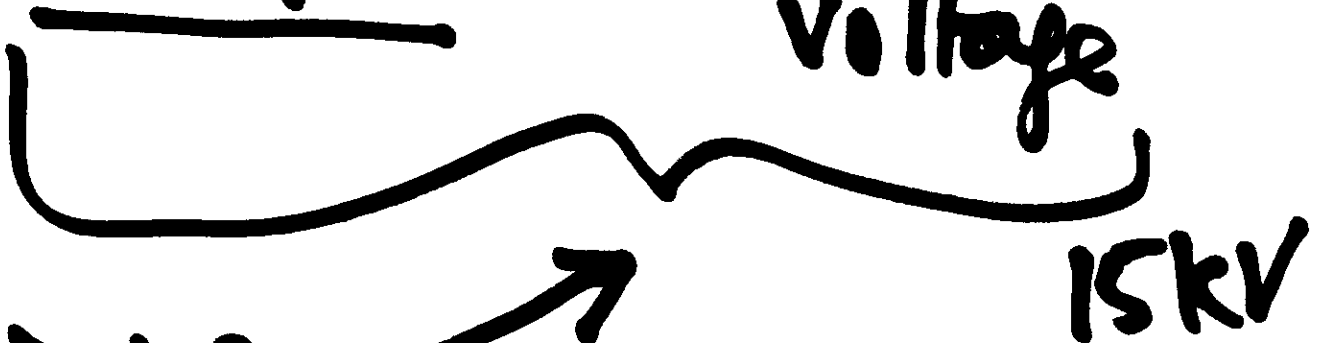
$$\frac{di}{dt} = V - iR$$

$$V_{OC} \propto \psi$$

$$\underline{\underline{i_L d\psi}}$$

$$\psi = f(i, i_f) \quad \frac{d\psi}{dt} = V - iR.$$

$E_{fd} \rightarrow 1.0 \text{ pu} \rightarrow \text{O.C. Voltage}$



$I_{fd} \rightarrow 1.0$



15kV

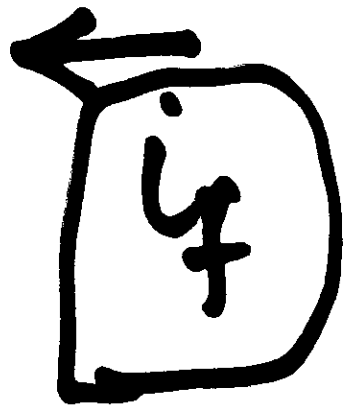
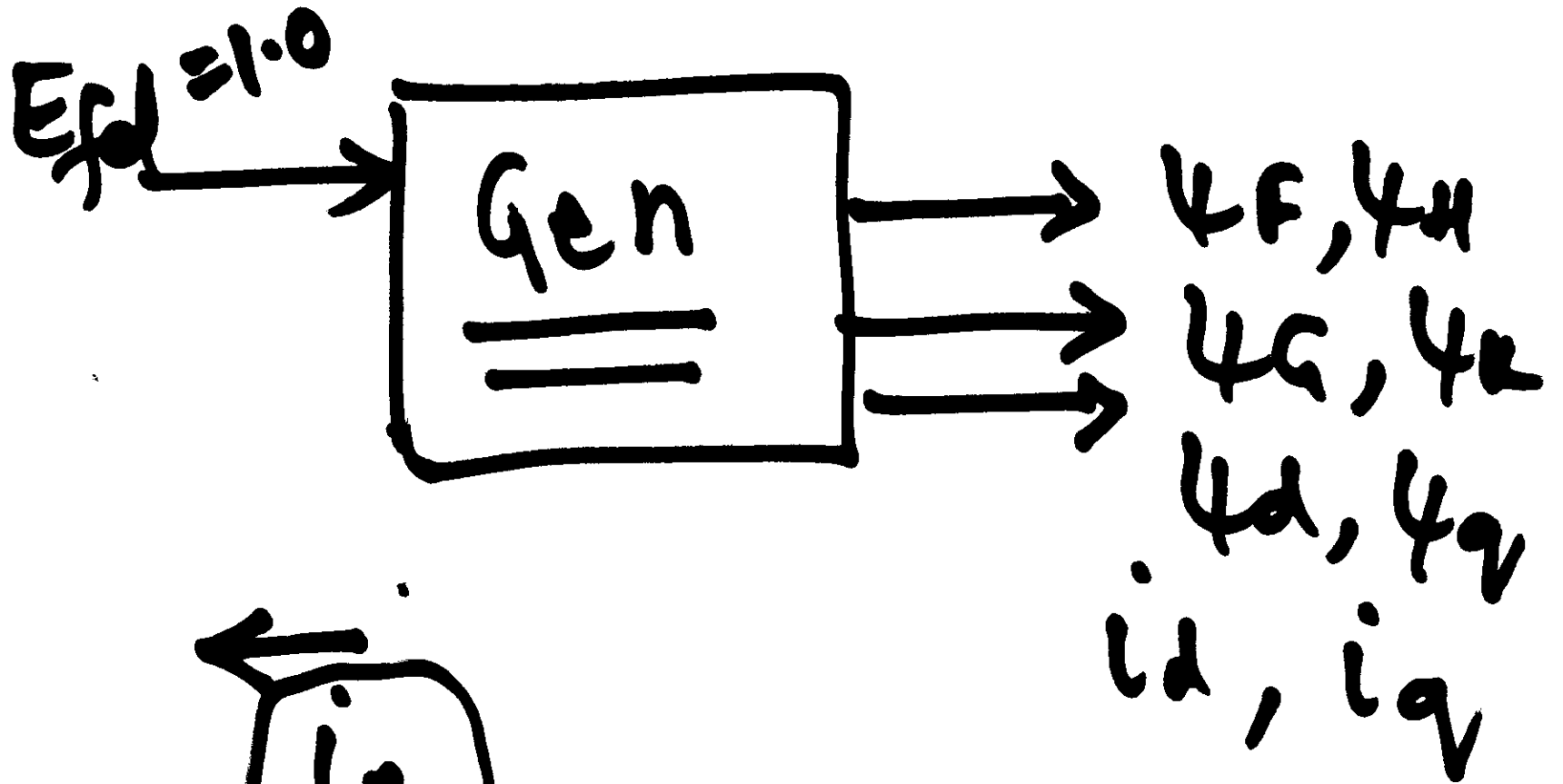


900A

$i \rightarrow 1.0$

$V_{fo} = 100V,$

$$E_{fd} = \frac{V_f}{V_{fo}} \frac{I_{fd}}{900}$$



$I_F = X \text{ pu}$   
 $I_f = 900A$

→ rated  
 v.  
 o.c.