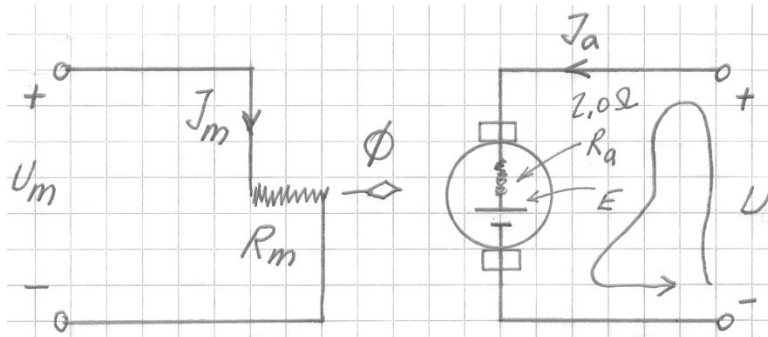


3.6 Separatmagnetiserad likströmsmotor



FALL I

$$U_I = 200 \text{ V}$$

$$J_{aI} = 10 \text{ A}$$

$$E_I = ?$$

$$n_I = 1000 \text{ RPM}$$

FALL II

$$U_{II} = 170 \text{ V}$$

$$J_{aII} = ?$$

$$E_{II} = ?$$

$$n_{II} = ?$$

SAMMA MOMENT OCH MAGNETISKT
" FLÖDE I DE TVÅ FALLEN.

$$\begin{aligned} a) \quad & \left. \begin{aligned} M &= k_2 \Phi J_{aI} \\ M &= k_2 \Phi J_{aII} \end{aligned} \right\} \Rightarrow J_{aII} = J_{aI} = \underline{10 \text{ A}} \end{aligned}$$

b) KIRCHHOFFS SPÄNNINGSLAG \Rightarrow

$$+U_I - R_a J_{aI} - E_I = 0 \Rightarrow \underline{E_I = 180 \text{ V}}$$

$$+U_{II} - R_a J_{aII} - E_{II} = 0 \Rightarrow \underline{E_{II} = 150 \text{ V}}$$

$$c) \quad \frac{E_I}{E_{II}} = \frac{k_1 \Phi n_I}{k_1 \Phi n_{II}} \Rightarrow \underline{n_{II} = 833 \text{ RPM}}$$