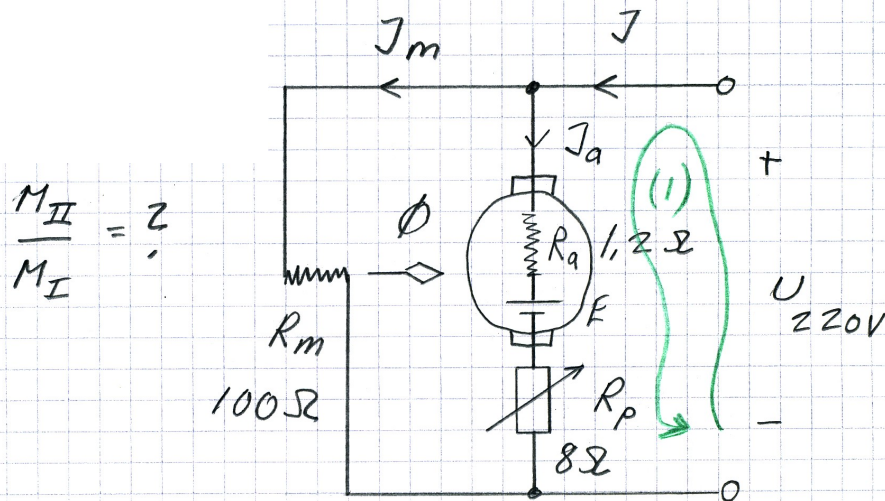


3.4



$$+U - R_a J_a - E - R_p J_a = 0 \dots (1)$$

\uparrow
 $k_1 \Phi n$

FALL I (MÄRKDRIFT)

$$J_I = 10 A$$

$$J_{aI} = J_I - J_m = J_I - \frac{U}{R_m}$$

$$\rightarrow J_{aI} = 10 - \frac{220}{100} = 7,8 A$$

FALL II (START, $n=0$)

$$(1) \Rightarrow +220 - 1,2 \cdot J_{aII} - k_1 \Phi \cdot 0 - 8 \cdot J_{aII} = 0$$

$$\rightarrow J_{aII} = 23,9 A$$

$$\frac{M_{II}}{M_I} = \frac{k_2 \Phi J_{aII}}{k_2 \Phi J_{aI}} \rightarrow \frac{M_{II}}{M_I} = \frac{23,9}{7,8} \approx \underline{\underline{3,1}}$$