

3.16

$$U = 220 \text{ V} \quad R_m + R_a = 0,5 \Omega$$

$$\text{FALL I} \quad J_I = 20 \text{ A}, \quad n_I = 1000 \text{ RPM}$$

$$\text{FALL II} \quad n_{II} = 1200 \text{ RPM} \quad P_{2II} = ?$$

$$+U - (R_m + R_a) J - E = 0 \quad \dots (1)$$

$$\uparrow$$

$$E = k \cdot \Phi n = k_1 k_2 J n$$

$$\text{FALL I INS 1 (1)} \rightarrow$$

$$+220 - 0,5 \cdot 20 - E_I = 0 \rightarrow E_I = 210 \text{ V}$$

$$\rightarrow 210 = k_1 k_2 \cdot 20 \cdot 1000 \rightarrow k_1 k_2 = 0,0105$$

$$\text{FALL II INS 1 (1)} \rightarrow$$

$$+220 - 0,5 \cdot J_{II} - 0,0105 \cdot J_{II} \cdot 1200 = 0$$

$$\rightarrow J_{II} = 16,8 \text{ A}$$

$$\rightarrow E_{II} = 0,0105 \cdot 16,8 \cdot 1200 = 211,6 \text{ V}$$

$$P_{2II} = E_{II} \cdot J_{II} \approx 3555 \text{ W}$$

