

$$44.1 \quad \eta_{is} = \frac{(h_{01} - h_{04})}{(h_{01} - h_{04is})} = \frac{(3382,9 - 3030)}{(3382,9 - 2956)} = \underline{\underline{0,827}}$$

$$P_{HT} = 215 \cdot (3382,9 - 3030) \cdot 0,97 \cdot 0,98 = 72125 \text{ kW}$$

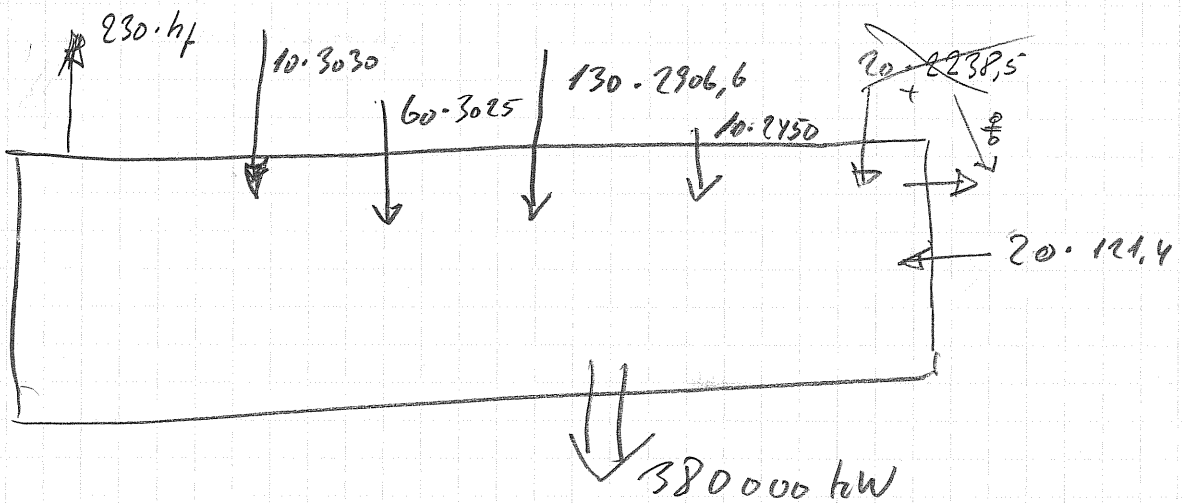
$$P_{MT1} = (215 - 10 + 15) \cdot (3541 - 3025) \cdot 0,97 \cdot 0,98 = 107912 \text{ kW}$$

$$P_{MT2} = (215 - 10 + 15 - 60) \cdot (3025 - 2906,6) \cdot 0,97 \cdot 0,98 = 18008 \text{ kW}$$

$$P_{LT1} = (215 - 10 + 15 - 60 - 130) \cdot (2906,6 - 2450) \cdot 0,97 \cdot 0,98 = 13021 \text{ kW}$$

$$P_{LT2} = 20 \cdot (2450 - 2238,5) \cdot 0,97 \cdot 0,98 = 4021 \text{ kW}$$

$$44.2 \quad P_{genkl} = \underline{\underline{215087 \text{ kW}}}$$



$$h_f = \frac{10 \cdot 3030 + 60 \cdot 3025 + 130 \cdot 2906,6 + 10 \cdot 2450 + 20 \cdot 121,4}{230} \approx 1029 \frac{\text{kJ}}{\text{kg}}$$

$$44.3 \quad P_{indfyr} = \frac{m_{d1} \cdot (h_{01} - h_f) + m_{d2} \cdot (h_{60} - h_u)}{\eta_k} = \frac{215 \cdot (3382,9 - 1029) + 20 \cdot (3541 - 3030)}{0,93}$$

$$P_{indfyr} = \underline{\underline{665063 \text{ kW}}}$$

$$\eta_{anlag} = \frac{P_G + P_{FTV}}{P_{ind}} = \frac{215087 + 380000}{665063} = \underline{\underline{0,895}}$$