

$$P = I * U = \frac{U^2}{R + r}$$

$$I = \frac{U}{R + r}$$

$$\mu * P = I * U_R = I^2 * R = \frac{U^2}{(R + r)^2} * R$$

$$U_R = I * R$$

$$\begin{cases} P = \frac{U^2}{R + r} \\ \mu * P = \frac{U^2}{(R + r)^2} * R \end{cases} \Rightarrow \begin{cases} R = \frac{U^2}{P} - r \\ \mu * P = \frac{U^2}{\left(\frac{U^2}{P}\right)^2} * \left(\frac{U^2}{P} - r\right) = \frac{P^2}{U^2} * \left(\frac{U^2}{P} - r\right) \Rightarrow \mu = 1 - \frac{P * r}{U^2} \Rightarrow \end{cases}$$

$$U^2 = \frac{P * r}{1 - \mu} \Rightarrow U = \sqrt{\frac{P * r}{1 - \mu}} = \sqrt{\frac{5 * 10^6 * 36}{1 - 0,95}} = 60000$$