

## Sýnidemi 3. fasu spennir

$$U_1 = 22 \text{ kV}$$

$$u = 55$$

Málstrámmur

$$\text{Á forvati } I_1 = 2,887 \text{ A}$$

$$\eta = 0,909$$

1) Málafli á forvati

$$S_1 = U \cdot I \cdot \sqrt{3} = 22 \cdot 10^3 \text{ V} \cdot 2,887 \text{ A} \cdot \sqrt{3} = \underline{\underline{110009 \text{ VA}}}$$

2) Málafli á eftirvati?

$$S_2 = \eta \cdot S_1 = 0,909 \cdot 110009 \text{ VA} = 100 \text{ kVA}$$

3) Spenna á eftirvati?

$$U_2 = \frac{U_1}{u} = \frac{22 \text{ kV}}{55} = \underline{\underline{400 \text{ V}}}$$

4) Málstrámmur á eftirvati?

$$I_2 = \frac{S_2}{(U_2 \cdot \sqrt{3})} = \frac{100 \cdot 10^3 \text{ VA}}{400 \text{ V} \cdot \sqrt{3}} = \underline{\underline{144 \text{ A}}}$$

5) Hvat er rannafli á Eftirvati ef  $\cos \beta = 0,78$ ?

$$P_2 = S_2 \cdot \cos \beta = 100 \cdot 10^3 \text{ VA} \cdot 0,78 = \underline{\underline{78 \text{ kW}}}$$