

$$\dot{E}_{2(H)} = \dot{I}_2 (R_2 + j X_{2\sigma})$$

$$E_{2(B)} = 4,44 f_2 w_2 + k_{w2} \Phi_0 = 4,44 \cdot s f w_2 \cdot k_{w2} \Phi_0 = s E_{2(H)}$$

$$\boxed{E_{2(B)} = s E_{2(H)}}$$

$$X_{2\sigma(H)} = w_2 L_{2\sigma} = 2\pi \cdot f_2 L_{2\sigma} = 2\pi s f L_{2\sigma} = s X_{2\sigma(H)}$$

$$\boxed{X_{2(B)} = s X_{2\sigma(H)}}$$

$$\dot{I}_2 = \frac{\dot{E}_{2(B)}}{R_2 + j X_{2(B)}}$$

$$I_2 = \frac{E_{2(B)}}{\sqrt{R_2^2 + X_{2(B)}^2}}$$



$$U' I \rightarrow \Psi$$

$$E^* I = \Psi$$

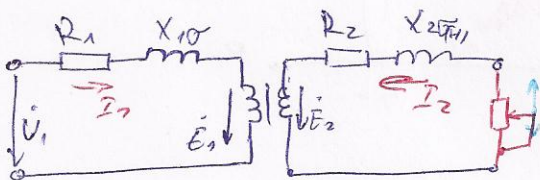
$$\Psi_2 = \arccos \frac{X_{2(B)}}{R_2}$$

$$I_2 = \frac{s E_{2(H)}}{\sqrt{R_2^2 + (s X_{2(H)})^2}} = \frac{E_{2(H)}}{\sqrt{\left(\frac{R_2}{s}\right)^2 + X_{2(H)}^2}}$$

$$R_{g\delta} = \frac{R_2}{s} - R_2 = R_2 \left(\frac{1-s}{s} \right)$$

$$s = 2\% \rightarrow s = 0,02$$

$$\boxed{R_{g\delta} = 49 R_2}$$



$$R_{g\delta} = R_2 \left(\frac{1-s}{s} \right)$$

$$\begin{cases} U_1 = E_1 + \dot{I}_1 (R_1 + j X_{1\sigma}) \\ \dot{I}_1 = \dot{I}_{10} + \left(\frac{w_2 k_{w2}}{w_1 k_{w1}} \dot{I}_2 \right) \\ \dot{E}_{2(H)} = \dot{I}_2 (R_2 + j X_{2\sigma(H)}) \end{cases}$$