

Решења 10. задатка:

ПХ:

$$R_a'' = \frac{U_{02f}^2}{P_0/3} = \frac{U_{02}^2}{P_0} = \frac{420^2}{650} = 271,4\Omega \Rightarrow I_a'' = \frac{U_{02f}}{R_a''} = \frac{420}{\sqrt{3} \cdot 271,4} = 0,893A$$

$$I_0'' = j_0 \cdot I_{2nf} = 0,024 \cdot 343,7 = 8,248A \Rightarrow I_\mu'' = 8,2A \Rightarrow X_\mu'' = \frac{U_{02f}}{I_\mu''} = \frac{420}{\sqrt{3} \cdot 8,2} = 29,6\Omega$$

КС:

$$R_k'' = \frac{P_k}{3I_{2nf}^2} = \frac{3250}{3 \cdot 343,7^2} = 9,2m\Omega \Rightarrow R_1'' = R_2 = \frac{R_k''}{2} = 4,6m\Omega$$

$$Z_k'' = \frac{u_k}{100} \frac{U_{02f}}{I_{2nf}} = \frac{4}{100} \cdot \frac{420}{\sqrt{3} \cdot 343,7} = 28,2m\Omega \Rightarrow X_k'' = \sqrt{Z_k''^2 - R_k''^2} = 26,6m\Omega$$

$$\Rightarrow X_{\sigma 1}'' = X_{\sigma 2}'' = \frac{X_k''}{2} = 13,3m\Omega$$

