

Някой формули и схеми, които бихте могли да използвате при решаване на задачи по EMC

$$R_\theta = R_{20} \cdot [1 + 0,004(\theta - 20)]$$

$$R = \rho \cdot \frac{l}{s}$$

$$r_0 = \frac{\rho}{F} = \frac{1}{\gamma \cdot s},$$

$$D_{cp} = \sqrt[3]{D_{12} \cdot D_{13} \cdot D_{23}}$$

$$x_0 = 0,144 \cdot \lg \frac{D_{cp}}{R_{np}} + 0,016 \cdot \mu.$$

$$x_0 = 0,144 \cdot \lg \frac{D_{cp}}{R_{npe}} + \frac{0,016 \cdot \mu}{n},$$

$$R_{npe} = \sqrt[n-1]{a \cdot m \cdot R_{np}},$$

$$\Delta P_{kop} = \frac{0,18}{\delta} \cdot \sqrt{\frac{R_{np}}{D_{cp}}} \cdot (U_\phi - U_{kop\phi})^2,$$

$$E_0 = 30,3 \cdot m \cdot \delta \cdot (1 + \frac{0,3}{\sqrt{R_{np} \cdot \delta}}),$$

$$\delta = \frac{0,386 \cdot P}{273 + \theta}$$

$$E_p = \frac{0,355 \cdot U_{ek}}{n \cdot R_{np} \lg \frac{D_{cp}}{R_{npe}}}; \text{ kV/cm}$$

$$E_p = \frac{0,355 \cdot U_{ek}}{n \cdot R_{np} \lg \frac{D_{cp}}{R_{npe}}}$$

$$g_0 = \frac{\Delta P_{kop}}{U_{hom}^2}$$

$$b_0 = \frac{7,58 \cdot 10^{-6}}{\lg \frac{D_{cp}}{R_{np}}}; b_{0p} = \frac{7,58 \cdot 10^{-6}}{\lg \frac{D_{cp}}{R_{npe}}}$$

$$\Delta Q_c = Q_{zap} = \sqrt{3} \cdot U \cdot I_c = B \cdot U^2.$$

$$R_T = \frac{\Delta P_k \cdot U_{hom}^2}{S_{hom}^2}.$$

$$X_{\text{T}} = \frac{U_{\text{k}} \cdot U_{\text{B HOM}}^2}{100 \cdot S_{\text{HOM}}}.$$

$$G_{\text{T}} = \frac{\Delta P_{\text{x}}}{U_{\text{B HOM}}^2}.$$

$$B_{\text{T}} = \frac{\Delta Q_{\text{x}}}{U_{\text{B HOM}}^2}.$$

$$\Delta P = 3I^2R = 3 \cdot [(I \cos \varphi)^2 + (I \sin \varphi)^2] \cdot R = 3 \cdot (\frac{P^2}{3U^2} + \frac{Q^2}{3U^2}) \cdot R = \frac{P^2 + Q^2}{U^2}R = \frac{S^2}{U^2}R$$

$$\Delta P_{\text{T}} = \Delta P_{\text{x}} + \Delta P_{\text{k}} \left( \frac{S}{S_{\text{HOM}}} \right)^2;$$

$$\Delta Q_{\text{T}} = \Delta Q_{\text{x}} + \frac{U_{\text{k}}}{100} \cdot \frac{S^2}{S_{\text{HOM}}}.$$

$$\Delta P_{\text{T}} = n \cdot \Delta P_{\text{x}} + \frac{1}{n} \cdot \Delta P_{\text{k}} \left( \frac{S}{S_{\text{HOM}}} \right)^2;$$

$$\Delta Q_{\text{T}} = n \cdot \Delta Q_{\text{x}} + \frac{1}{n} \cdot \frac{U_{\text{k}}}{100} \cdot \frac{S^2}{S_{\text{HOM}}}.$$

$$\Delta A = 3 \cdot R \cdot \int_0^{8760} I_t^2 \cdot dt = R \cdot \int_0^{8760} \frac{S_t^2}{U_t^2} dt =$$

$$= R \cdot \left( \int_0^{8760} \frac{P_t^2}{U_t^2} dt + \int_0^{8760} \frac{Q_t^2}{U_t^2} dt \right).$$

$$\Delta A_{\text{T}} = [n \cdot \Delta P_{\text{x}} + \frac{1}{n} \cdot \Delta P_{\text{k}} \left( \frac{S}{S_{\text{HOM}}} \right)^2] \cdot \Delta t_i;$$

$$\Delta A_{\text{T}} = \{n \cdot \Delta P_{\text{x}} + \frac{1}{n} [\Delta P_{\text{KB}} \left( \frac{S_{\text{B}}}{S_{\text{HOM}}} \right)^2 + \Delta P_{\text{KC}} \left( \frac{S_{\text{C}}}{S_{\text{HOM}}} \right)^2 + \Delta P_{\text{KH}} \left( \frac{S_{\text{H}}}{S_{\text{HOM}}} \right)^2]\} \cdot \Delta t_i.$$

$$\tau_{\text{M}} = (0,124 + \frac{T_{\text{M}}}{10000})^2 \cdot 8760.$$

$$\Delta A_{\text{T}} = n \cdot \Delta P_{\text{x}} \cdot 8760 + \frac{1}{n} \cdot \Delta P_{\text{k}} \left( \frac{S}{S_{\text{HOM}}} \right)^2 \cdot \tau_{\text{M}}$$

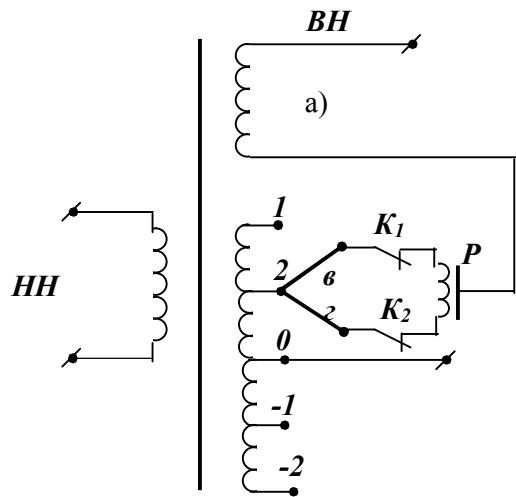
$$\Delta U_{\text{ИП-i}} = \frac{1}{U_{\text{HOM}}} \cdot \sum_{j=1}^i (P_j \cdot R_j + Q_j \cdot X_j);$$

$$S = \frac{\rho * \sum_{i=1}^n P_i \cdot l_i}{U_{\text{HOM}} \cdot \Delta U_{\text{доп а}}}.$$

$$k_{\text{p}} = \frac{\rho * \sum_{i=1}^n \sqrt{P_i} \cdot l_i}{U_{\text{HOM}} \cdot \Delta U_{\text{доп а}}}. \quad s_i = k_{\text{p}} \cdot \sqrt{P_i}$$

$$j_{\Delta P} = \frac{U_{\text{доп а}}}{\rho \sqrt{3} \cdot \sum_{i=1}^n \cos \varphi_i \cdot l_i}, \quad s_i = \frac{I_i}{j_{\Delta P}},$$

$$Q_{\text{КБ}} = P_{\text{T}} \cdot (\operatorname{tg} \varphi_{\text{T}} - \operatorname{tg} \varphi_{\text{Ж}}).$$



PHT