

$$\omega_0 L - \frac{1}{\omega_0 C} = 0$$

$$\omega_0 = \frac{1}{\sqrt{LC}}$$

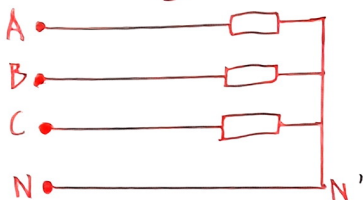
$$Q = \frac{1}{R} \sqrt{\frac{L}{C}} = \frac{\omega_0 L}{R} = \frac{1}{\omega_0 CR} \quad Q = \frac{1}{\omega_0 L G} = \frac{\omega_0 C}{G} = \frac{1}{G} \sqrt{\frac{C}{L}}$$

$$\omega_0 = \sqrt{\frac{1}{CL} - \frac{R^2}{L^2}}$$

$$U_L = U_C = Q U$$

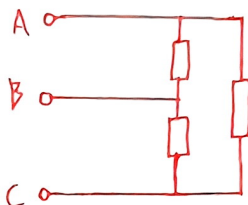
$$I_L = I_C = Q I_s$$

$$BW = \frac{\omega_0}{Q}$$



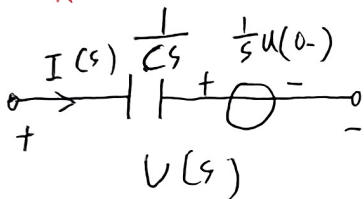
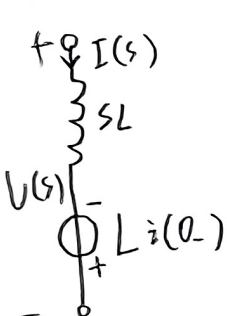
$$U_{\text{相}} = \frac{1}{\sqrt{3}} U_{\text{线}}$$

$$I_{\text{相}} = I_{\text{线}}$$



$$I_{\text{相}} = \frac{1}{\sqrt{3}} I_{\text{线}} \quad \dot{I}_{A'B'} = \frac{1}{\sqrt{3}} \dot{I}_A \angle 30^\circ$$

$$U_{\text{相}} = U_{\text{线}}$$



$$Y: I_1 = Y_{11} U_1 + Y_{12} U_2$$

$$I_2 = Y_{21} U_1 + Y_{22} U_2$$

$$T: \begin{bmatrix} \dot{U}_1 \\ \dot{I}_1 \end{bmatrix} = \begin{bmatrix} A & B \\ C & D \end{bmatrix} \begin{bmatrix} \dot{U}_2 \\ -\dot{I}_2 \end{bmatrix}$$

$$\begin{bmatrix} \dot{I}_1 \\ \dot{I}_2 \end{bmatrix} = \begin{bmatrix} Y_{11} & Y_{12} \\ Y_{21} & Y_{22} \end{bmatrix} \begin{bmatrix} \dot{U}_1 \\ \dot{U}_2 \end{bmatrix}$$

$$H: \begin{bmatrix} \dot{U}_1 \\ \dot{I}_2 \end{bmatrix} = \begin{bmatrix} H_{11} & H_{12} \\ H_{21} & H_{22} \end{bmatrix} \begin{bmatrix} \dot{I}_1 \\ \dot{U}_2 \end{bmatrix}$$

$$Z: U_1 = Z_{11} I_1 + Z_{12} I_2$$

$$U_2 = Z_{21} I_1 + Z_{22} I_2$$

$$\begin{bmatrix} U_1 \\ U_2 \end{bmatrix} = \begin{bmatrix} Z_{11} & Z_{12} \\ Z_{21} & Z_{22} \end{bmatrix} \begin{bmatrix} I_1 \\ I_2 \end{bmatrix}$$

