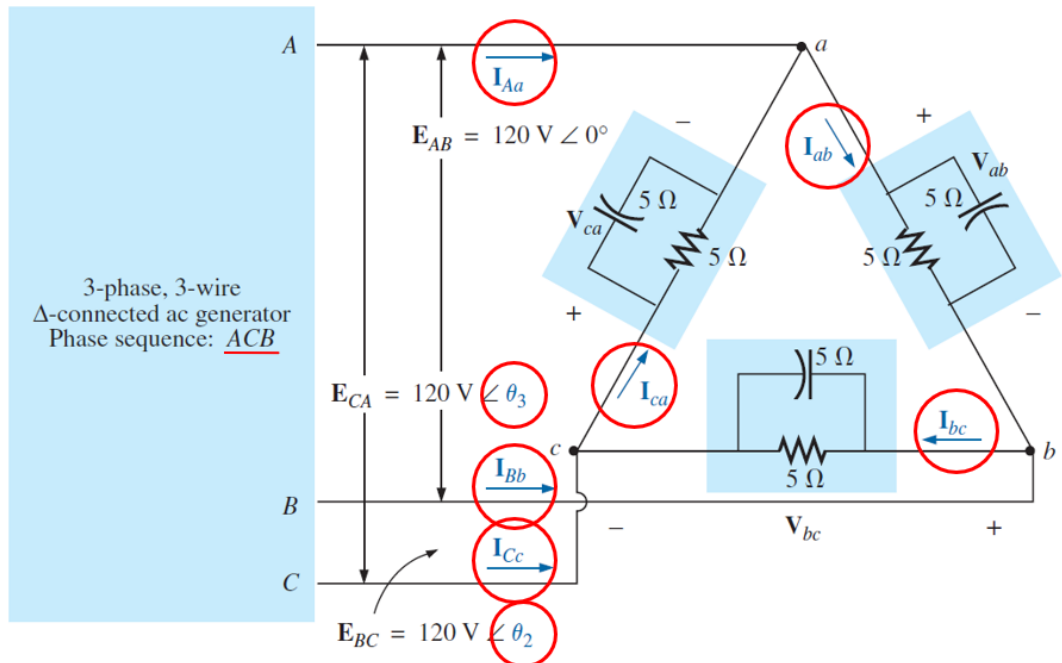




Дәріс-14. Δ-Δ түрінде жалғанған генератор мен тұтынушы (жүктеме).

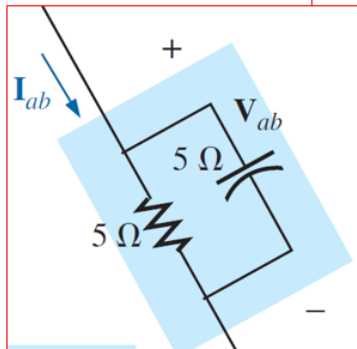


ACB фазалық реті үшін: $\theta_2 = 120^\circ$ және $\theta_3 = -120^\circ$

$V_\phi = E_L$ болғандықтан $V_{ab} = E_{AB}$ $V_{ca} = E_{CA}$ $V_{bc} = E_{BC}$

Фазалық токтар:

$$I_{ab} = \frac{V_{ab}}{Z_{ab}} = \frac{120 \text{ V } \angle 0^\circ}{(5 \Omega \angle 0^\circ)(5 \Omega \angle -90^\circ)} = \frac{120 \text{ V } \angle 0^\circ}{25 \Omega \angle -90^\circ} = \frac{120 \text{ V } \angle 0^\circ}{5 \Omega - j 5 \Omega} = \frac{120 \text{ V } \angle 0^\circ}{7.071 \angle -45^\circ} = \frac{120 \text{ V } \angle 0^\circ}{3.54 \Omega \angle -45^\circ} = 33.9 \text{ A } \angle 45^\circ$$



$$I_{bc} = \frac{V_{bc}}{Z_{bc}} = \frac{120 \text{ V } \angle 120^\circ}{3.54 \Omega \angle -45^\circ} = 33.9 \text{ A } \angle 165^\circ$$

$$I_{ca} = \frac{V_{ca}}{Z_{ca}} = \frac{120 \text{ V } \angle -120^\circ}{3.54 \Omega \angle -45^\circ} = 33.9 \text{ A } \angle -75^\circ$$



$$I_L = \sqrt{3}I_\phi = (1.73)(34 \text{ A}) = 58.82 \text{ A}$$

$$I_{Aa} = I_{Bb} = I_{Cc} = \mathbf{58.82 \text{ A}}$$