

ИСПИТ ИЗ ОСНОВА ЕЛЕКТРОТЕХНИКЕ 2

13. 09. 2017. - Рјешења

1.

$$I_1 = -\frac{(1+\sqrt{2})\pi}{4} I.$$

2.

$$I_{m2} / I_{m1} \approx 0,58.$$

3.

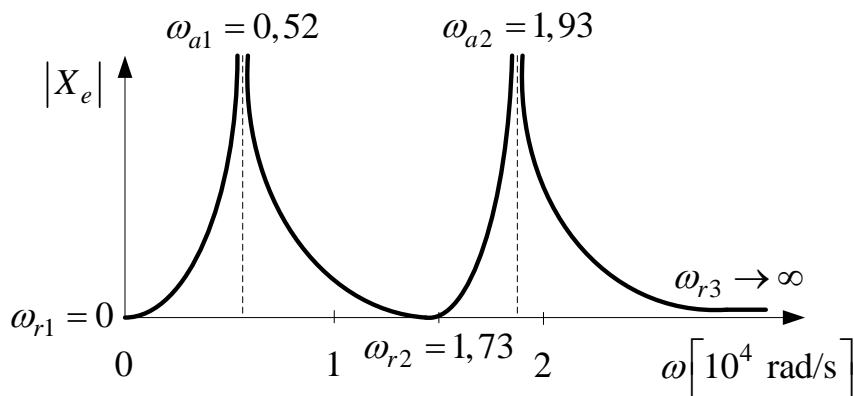
$$\Phi = 0,56 \text{ mT},$$

$$I_2 = 0,96 \text{ A}.$$

4.

a) $\omega_{r1} = 0, \quad \omega_{r2} = \sqrt{3} \cdot 10^4 \text{ rad/s}, \quad \omega_{r3} \rightarrow \infty,$
 $\omega_{a1} \approx 0,52 \cdot 10^4 \text{ rad/s}, \quad \omega_{a2} \approx 1,93 \cdot 10^4 \text{ rad/s}$

б)



в) $U_{C\max} = 20\sqrt{2} \text{ V}, \quad \theta_C = \frac{\pi}{2}, \quad I_{L\max} = 5,46 \text{ A}, \quad \theta_L = 0.$

5.

$$U_{AB} = -(8,5 + j4,5) \text{ V}.$$

6.

$$\Delta P = -600 \text{ W.}$$