

$$I_c + I_{L1} - I_{L2} = 0$$

$$I_A + I_{L2} - I_{L3} = 0$$

Yaruvy's conjecture:

3dB (80%)

$$P_{TOT} = (V_{C-B}) \cdot I_c + (V_{A-B}) \cdot I_A$$

(i)  $P_{L1} = -(V_{C-B}) I_{L1}$

(ii)  $P_{L2} = + (V_{C-A}) I_{L2}$

(iii)  $P_{L3} = + (V_{A-B}) I_{L3}$

(iv)  $(V_{C-A}) = (V_{C-B}) - (V_{A-B})$

$$P_T = -(V_{C-B}) I_{L1} + (V_{C-A}) I_{L2} + (V_{A-B}) I_{L3}$$

$$P_T = -(V_{C-B}) I_{L1} + [V_{C-B} - V_{A-B}] I_{L2} + (V_{A-B}) I_{L3}$$

$$= (V_{C-B}) [I_{L1} - I_{L2}] + (V_{A-B}) [I_{L3} - I_{L2}]$$

$$-I_c$$

$$\frac{V}{I_A}$$

