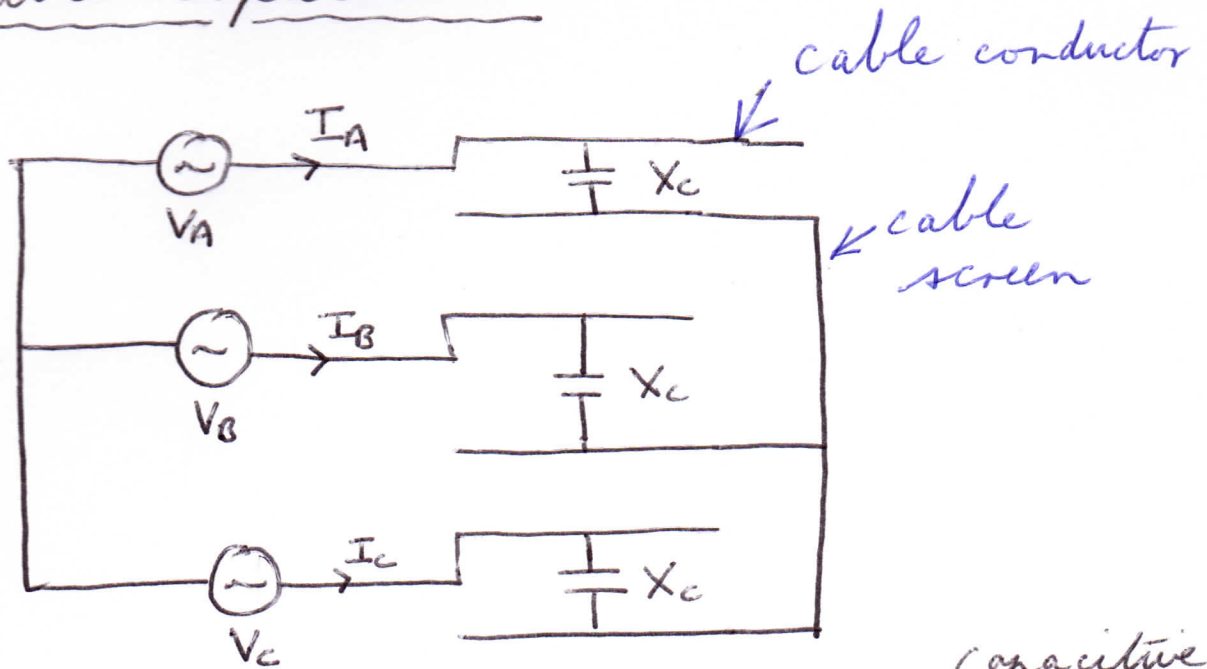
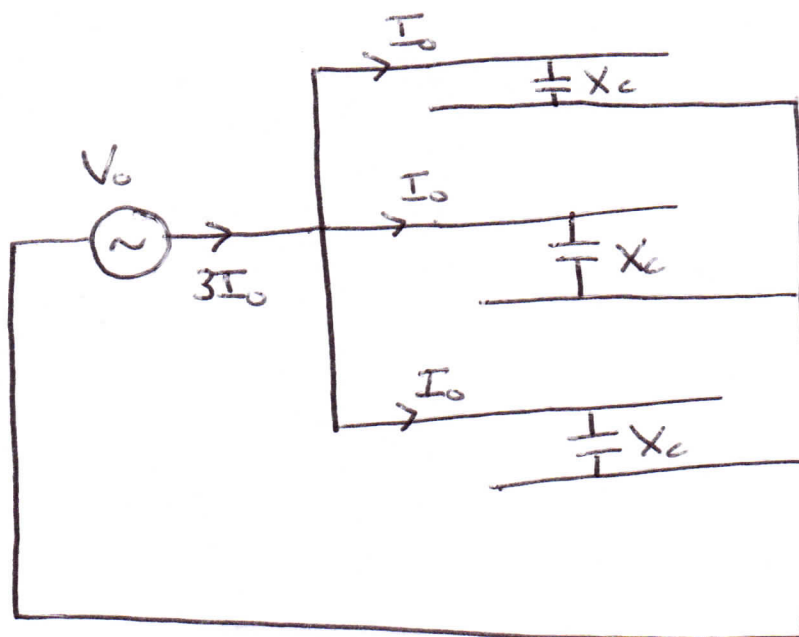


Cable capacitances



$$\frac{V_A}{I_1} = \frac{V_1}{I_1} = Z_1 = X_C$$

capacitive reactance due to $X_C =$ distributed capacitance along cable length.



$$\frac{V_0}{3I_0} = \frac{X_C}{3} \Rightarrow \frac{V_0}{I_0} = Z_0 = X_C$$

$$\therefore Z_1 = Z_0 ?$$