Capacitive Overview

Series Capacitive

$$X_{CT} = X_{C1} + X_{C2} + X_{C3}$$

$$I_{CT} = I_{C1} = I_{C2} = I_{C3}$$

$$E_{CT} = E_{C1} + E_{C2} + E_{C3}$$

$$VARS_{CT} = VARS_{C1} + VARS_{C2} + VARS_{C3}$$

$$C_T = \frac{1}{1/C1 + 1/C2 + 1/C3}$$

Parallel Capacitive

$$X_{CT} = \frac{1}{1/X_{C1} + 1/X_{C2} + 1/X_{C3}}$$

$$I_{CT} = I_{C1} + I_{C2} + I_{C3}$$

$$E_{CT} = E_{C1} = E_{C2} = E_{C3}$$

$$VARS_{CT} = VARS_{C1} = VARS_{C2} = VARS_{C3}$$

$$CT = C_1 + C_2 + C_3$$

Series Resistive Capacitive

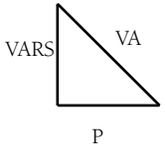
$$Z = \sqrt{R^2 + X_C^2}$$

$$I_T = I_R = I_C$$

$$E_T = \sqrt{E_R^2 + E_C^2}$$

$$VA = \sqrt{P^2 + VARS_C^2}$$

PF + ∠⊘



Parallel Resistive Capacitive

$$Z = \frac{1}{\sqrt{(1/R)^2 + (1/X_C)^2}}$$

$$I_T = \sqrt{I_R^2 + I_C^2}$$

$$E_T = E_R = E_C$$

$$VA = \sqrt{P^2 + VARS_C^2}$$

PF + ∠⊘

Series Resistive Inductive Capacitive

$$Z = \sqrt{R^2 + (X_L - X_C)^2}$$

$$I_T = I_R = I_L = I_C$$

$$E_T = \sqrt{E_R^2 + (E_L - E_C)^2}$$

$$VA = \sqrt{P^2 + (VARS_L - VARS_C)^2}$$

PF + ∠⊘

Parallel Resistive Inductive Capacitive

$$Z = \frac{1}{\sqrt{(1/R)^2 + (1/X_L - 1/X_C)^2}}$$

$$I_T = \sqrt{I_R^2 + (I_L - I_C)^2}$$

$$E_T = E_R = E_L = E_C$$

$$VA = \sqrt{P^2 + (VARS_L - VARS_C)^2}$$

PF + ∠⊘