

Single Phase \bar{S} : $\bar{S} = \bar{V} \cdot \bar{I}^*$

Q for L and C: $Q_L = \frac{V^2}{X_L}$ $Q_C = \frac{V^2}{X_C}$

Y Connection: $\bar{V}_{ll} = \sqrt{3} \angle 30^\circ \cdot \bar{V}_\phi$

Δ Connection: $\bar{I}_l = \sqrt{3} \angle -30^\circ \cdot \bar{I}_\phi$

3 Phase Power: $\bar{S}_{3\phi} = 3 \cdot \bar{V}_\phi \cdot \bar{I}_\phi^*$

$$S = \sqrt{3} \cdot V_{ll} \cdot I_l$$

$$P = S \cdot pf \qquad S^2 = P^2 + Q^2$$