General

Single Phase $\overline{S}$:	$\overline{S} = \overline{V} \cdot \overline{I}^*$
Q for L and C:	$Q_L = \frac{V^2}{X_L} \qquad Q_C = \frac{V^2}{X_C}$
Y Connection:	$\overline{V_{ll}} = \sqrt{3}\angle 30^{\text{o}} \cdot \overline{V_\phi}$
Δ Connection:	$\overline{I_l} = \sqrt{3}\angle -30^{\text{o}} \cdot \overline{I_\phi}$
3 Phase Power:	$\overline{S_{3\phi}} = 3 \cdot \overline{V_\phi} \cdot \overline{I_\phi^*}$
	$S = \sqrt{3} \cdot V_{ll} \cdot I_l$
	$P = S \cdot pf \qquad S^2 = P^2 + Q^2$

Per Unit

Single Phase:	$S_{\text{base},1\phi} = P_{\text{base},1\phi} = Q_{\text{base},1\phi}$
	$I_{\text{base}} = \frac{S_{\text{base},1\phi}}{V_{\text{base,L-N}}}$
	$Z_{\text{base}} = R_{\text{base}} = X_{\text{base}}$
	$Z_{\text{base}} = \frac{V_{\text{base,L-N}}}{I_{\text{base}}} = \frac{V^2_{\text{base,L-N}}}{S_{\text{base},1\phi}}$
Three Phase:	$S_{\text{base},3\phi} = 3 \cdot S_{\text{base},1\phi}$
	$V_{\text{base,L-L}} = \sqrt{3} V_{\text{base,L-N}}$
	$I_{\text{base}} = \frac{S_{\text{base},3\phi}}{\sqrt{3} V_{\text{base,L-L}}}$
	$Z_{\text{base}} = \frac{V^2_{\text{base,L-L}}}{S_{\text{base},3\phi}}$
Change of Base:	$Z_{\text{pu,new}} = Z_{\text{pu,old}} \left(\frac{V_{\text{base,old}}}{V_{\text{base,new}}} \right)^2 \frac{S_{\text{base,new}}}{S_{\text{base,old}}}$