CONSTRUCTION ELECTRICIAN IP FORMULAS

$$I = \frac{E}{R}$$

$$P = E \times I$$

$$P = I^2 \times R$$

$$P = hp \times 746$$

$$PF = \frac{\text{True Power}}{\text{Apparent Power}}$$

$$E_{Line} = E_{Phase} \times \sqrt{3}$$

$$I_{Line} = I_{Phase} \times \sqrt{3}$$

$$P_{Total} = E_{Line} \times I_{Line} \times PF \times \sqrt{3}$$

$$P_{Total} = E_{Phase} \times I_{Phase} \times PF \times 3$$

$$\frac{N_p}{N_s} = \frac{E_p}{E_s}$$

$$VA = E_{Line} \times I_{Line} \times \sqrt{3}$$

$$VA = E_{Phase} \times I_{Phase} \times 3$$

CONSTRUCTION ELECTRICIAN IP FORMULAS (continued)

$$\frac{E_p}{E_s} = \frac{N_p}{N_s} = \frac{I_s}{I_p}$$

$$\text{Frequency} = \frac{\text{Poles} \times \text{Speed}}{120}$$

$$I_{\text{Short Circuit}} = \frac{I_{\text{Secondary}}}{\%\, Z}$$