The Per Unit Base Converter tool is used to convert impedances from one per unit base to another. To use the tool, the following input values are required:

- Input Impedance in per unit ohms on original base
- MVA Base 1 (original) & MVA Base 2 (new)
- kV Base 1 (original) & kV Base 2 (new)

Note: All input fields must be filled in for the tool to function properly. A zero (0) value is acceptable for the real or reactive impedance components.

Once the Calculate button has been depressed, the new per unit impedance value is calculated. The new base ohms value is provided for the new kV and MVA bases.

The impedance conversion formula utilized by the program is the following:

$$\text{New Per Unit Value} = \text{Input Per Unit Ohms} \times \frac{\text{MVA Base 2}}{\text{MVA Base 1}} \times \frac{(\text{kV Base 1})^2}{(\text{kV Base 2})^2}$$

$$\text{New Base Ohms} = \frac{(\text{kV Base 2})^2}{\text{MVA Base 2}}$$

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