

This calculator is used to calculate and plot phasor and power values from a given input set of vectors. The input values include the phase to ground voltages and phase currents. The phase angles are also required for all of the input quantities. Note that all of the input values must be filled in for the calculator to function properly. Zero values are acceptable for all of the input values as appropriate.

After the input values are entered and the Calculate button is depressed, the phase to phase voltages are calculated and added to the phasor display at the top of the calculator. The real and reactive power values are also calculated and the power triangle is plotted in the lower graphical display.

In analyzing the power triangle, it is important to note that the reference direction for the power flows are the following:

Reactive Power (Q) – Positive Var flow is from source to a reactive load. This represents a lagging power factor as is typical for most distribution circuits.

Real Power (P) – Positive power flow is from the source to the load.

The Clear button can be used to clear all of the input values for starting over.

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