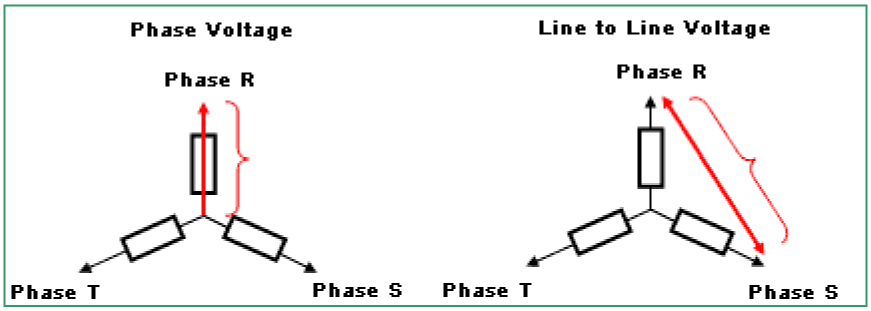
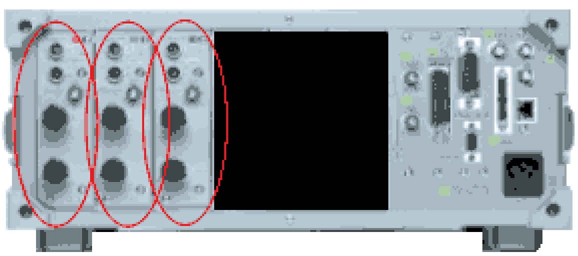
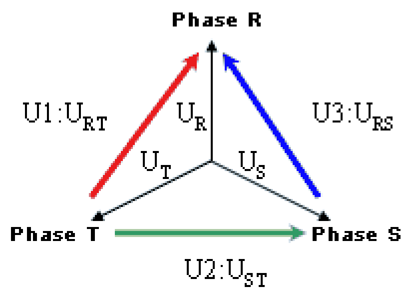
Explanation:

Terminology



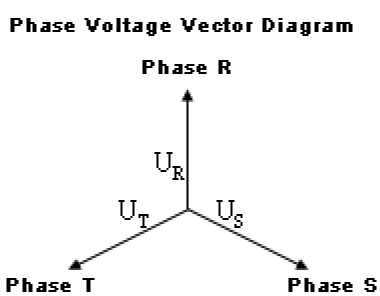
Ex.: When wiring the WT1600 for 3V3A, wire U1 and U2 using phase T as a reference.

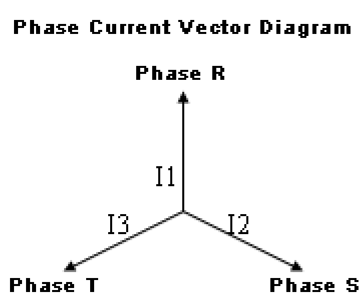




The relationship between the phase voltage and the line to line voltage is shown in the figure.

If the phase angle of the phase voltage and phase current is 0 degrees, the relationship between the line to line voltage and phase current becomes that in the figure below.
Phase current is input for the power meter's current input, so IR=I1, IS=I2, IT=I3.

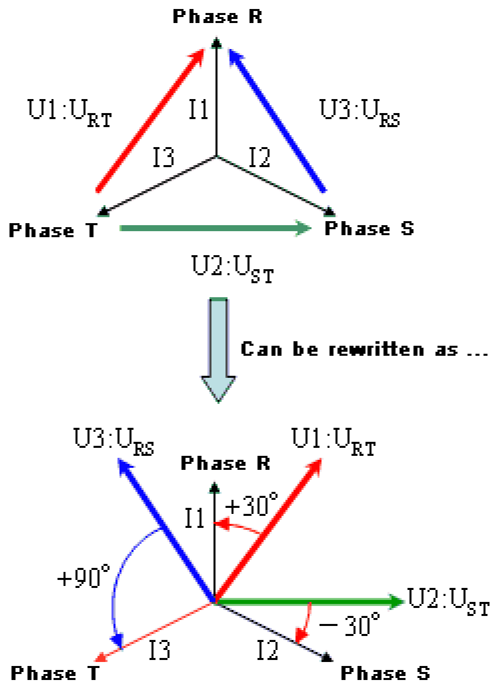




In three-phase signals where the phase angle of voltage and current is 0 degrees, if you wire the WT1600 for 3V3A, the phase difference of voltage and current on input element 1, as shown in the figure on the right, is +30 degrees. For input element 2, the phase difference of voltage and current is -30 degrees. For input element 3, the phase difference of voltage and current is +90 degrees. (Notated with a + if the current lags the voltage, and a - if the current leads). As a result, the phase difference of voltage and current is different for each input element.

Therefore, the active power values P1, P2, and P3 of each input element are different as displayed. When measuring power with 3V3A or three-phase three-wire systems, the values of P1, P2, and P3 have a particular meaning that does not directly indicate some physical quantity.

Rather, they indicate a power in which the phase is apparently off by 30 or 90 degrees, and the total three-phase power is only indicated by the value (P1+P2).



Vector diagram of the between wire voltage and phase current
(namely, vectors of the voltage and current input to the power meter)