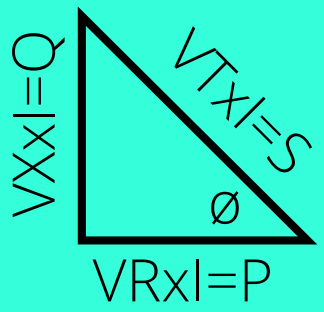
AC Power Triangle

ANALYSED IN DETAIL

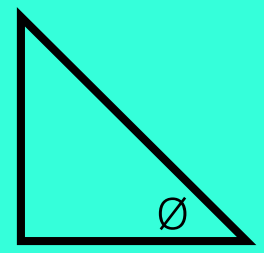
ANALYSING

IN 5-EASY STEPS



1

BUILT ON VOLTAGE OR IMPEDANCE TRIANGLES



P=VxIxCosø

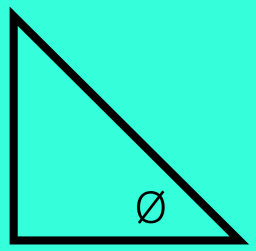
$P=\sqrt{S^2- Q^2}$

2

TRIANGLE BASE
Real or true power Consumed by circuit resistance. Measured in **Watts**

Q=VxIxSinø

$Q=\sqrt{S^2- P^2}$

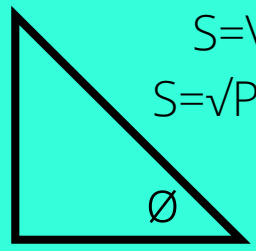


3

TRIANGLE VERTICAL
Reactive power stored and released NO power consumed. Measured in Volt Amps Reactive. **VAR**

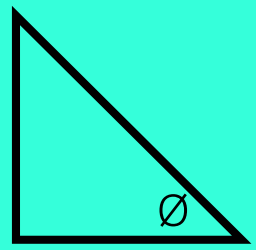
S=VxI

$S=\sqrt{P^2+ Q^2}$



4

TRIANGLE HYP
Apparent power. Seems to be power but is not. Measured in Volt Amps. **VA**



PF= Cosø

PF =P/S

5

PHASE ANGLE OR POWER FACTOR
Measure in degrees