

TERMS and FORMULAS

<i>Term</i>	<i>Symbol</i>	<i>Explanation</i>
Ampere	I	Unit of current or rate of flow of electricity.
Volt	E	Unit of electromotive force.
Ohm	R	Unit of resistance.
Megohm		1,000,000 ohms.
Volts Ampere	va	Unit of apparent power. va = E x I (formula for single-phase) va = E x I x 1.73 (formula for three-phase)
Kilovolt Amperes	kva	1,000 volt-amperes.
Watt	w	Unit of power. w = va x p-f w = 0.00134hp
Kilowatt	kw	1,000 watts.
Power Factor	p-f	Ratio of true to apparent power. p-f = w/va or kw/kva
Watt-hour	whr	Unit of electrical work, one watt for one hour.
Kilowatt-hour	kwhr	1,000 watt-hours. kwhr = 3,412 Btu
Horsepower	hp	Measure of time rate doing work, equivalent of raising 33,000 lbs. one ft. in one minute. hp = 745.7 watts

<i>Useful Formula</i>		
Amperes	equals	Watts ÷ Volts
Amperes	equals	Volts ÷ Ohms
Ohms	equals	Volts ² ÷ Watts
Ohms	equals	Watts ÷ Amperes ²
Volts	equals	Amperes x Ohms
Volts	equals	Watts ÷ Amperes
Watts	equals	Volts x Amperes
Watts	equals	Amperes ² x Ohms