Need to Find:	Formula
Horsepower DC	(Volts x Amps x Efficiency)/746
Horsepower AC	(Volts x Amps x 1.732 x Eff x PF)/746
Watts DC	Volts x Amps
Watts AC	Volts x Amps x PF x 1.732
Kilowatts	(Volts x Amps x PF x 1.732)/1000
Amperes DC	Watts / Volts
Amperes AC	(746 x Horsepower)/(Volts x eff x PF x 1.732)
KVA	(Volts x Amps x 1.732)/1000
Fan Motor HP	(CFM x Pressure (lbs/sq ft))/(33000 x eff)
Pump Motor HP	(GPM x Head (ft) x Specific Gravity)/(3960 x eff of pump)

Watt calculation/conversion formulas:

watts = volts^2 / ohms

watts = amps^2 * ohms

watts = volts * amps

Volt calculation/conversion formulas:

volts = $\sqrt{}$ watts * ohms

volts = watts / amps

volts = amps * ohms

Amp calculation/conversion formulas:

amps = volts / ohms

amps = watts / volts

amps = $\sqrt{}$ watts / ohms

Ohms calculation/conversion formulas:

ohms = volts / amps

ohms = volts^2 / watts

ohms = watts / amps^2

current: $I = Q/t$

Where in above equation:

I = Current [measured in amperes]

Q = Charge [in coulombs]

Where t= time in seconds

Formulas to calculate resistance

From area $\qquad$ $R = \rho l/A$

From radius $\qquad$ $R = \rho l/\pi r^2$

From diameter $\qquad$ $R = 4\rho l/\pi d^2$

where

ρ = Resistivity of material (unit: Ω-m)

l = length (m)

A = area of cross-section (m^2)