

Electricity ⚡

Basic Terms:

- AC** Alternating Current: current alternates the direction it travels through a circuit. All standard wall outlets provide alternating current.
- DC** Direct Current: electrical current flows in only one direction, steadily or in pulses, this is Direct Current.
- Current** Measured in AMPERE (AMPS). Current is the quantity of electrons passing a given point. One ampere is (6.28×10^{18}) passing a point in a second.
- Voltage** This is the electrical pressure or force. Voltage sometimes referred to, as *potential voltage drop* is the difference in voltage between the two ends of a conductor through which current is flowing.
- Power** The work performed by an electrical current is called power. Power is measured in WATTS.
- Resistance** All conductors have resistance, the degree to which a conductor limits current is its resistance. Resistance can act like a tap on a water pipe ,controlling the number of electrons flowing through a conductor. The unit of measure for a resistor is the ohm (Ω). A potential difference of one volt will force a current of one ampere through a resistance of one ohm. The resistance of a conductor is the voltage drop divided by the current flowing through the conductor.

Ohms Law Ω

V= volt

I= amp

R= resistance

P= power

$V = I \times R$

$I = V \div R$

$R = V \div I$

$P = V \times I$