

# WATTS, AMPS and VOLTS

Watt, Amp, and volt are fundamental units of measurement in electricity. Each serves a distinct purpose in understanding and quantifying electrical phenomena. When working with off-grid systems, it's important to know what they are and how it's calculated.

$$\text{Power (Watts)} = \text{Voltage (Volts)} \times \text{Current (Amps)}$$

## Watt (W):

Measures the **rate of energy transfer** or consumption per unit of time. In practical terms, watts are used to quantify the power output or consumption of electrical devices, such as light bulbs, appliances, and electronics.

## Ampere (Amp) (A):

Measures the **rate of flow** of electric charge through a conductor. Amps are used to quantify the amount of current flowing through a circuit or conductor, determining the capacity or load of electrical systems and devices.

## Volt (V):

Measures the **amount of electrical pressure** or energy per unit charge. Volts are used to quantify the voltage level or potential difference in electrical circuits, indicating the force with which electric charges move through a conductor or across a circuit.

# OHM'S LAW

