

5.1 Electric Currents

Current is the rate of flow of Charge Electric charge is the movement of electrons.

To measure current, we use an ammeter.

The unit of current is amperes or amps (A).

The negatively charged electrons flow from the negative terminal of an ammeter to a positive terminal while current flows from the positive terminal to a negative terminal.

For electrons to flow, 2 main things are needed:

- A source of potential difference is also known as voltage. It provides the pressure that makes the current flow
- A complete circuit with no brake or a closed circuit.

To measure Current:

$$I = \frac{Q}{t}$$

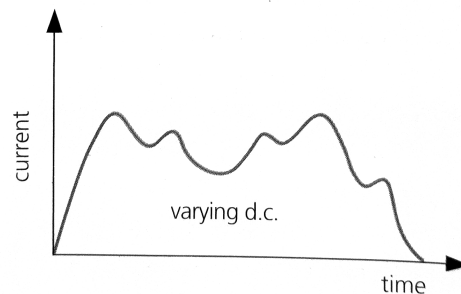
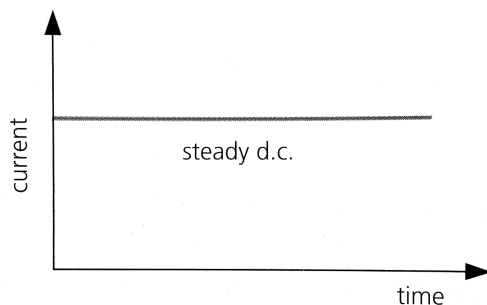
I is current Q is charge flowing

t is time

the unit of charge is Coulomb (C)

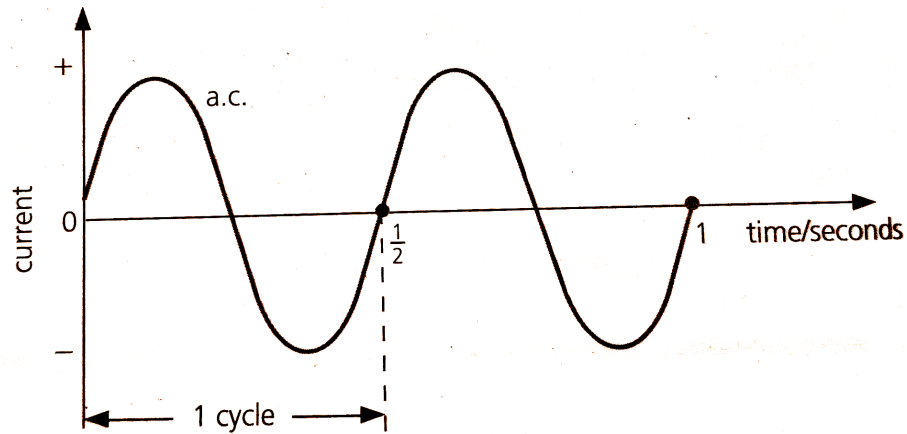
There are two types of current:

1) Direct current (d.c): The flow of electrons in one direction only. For example, d.c is found in batteries and electronic devices.



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2.) Alternating current(a.c): The flow of current constantly changes directions. For example in power distribution.



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