Knowledge Check: DC and AC Electricity

You must either type your answer or choose the correct option from the drop-down list provided.

There are two types of electricity, known as DC electricity and AC electricity.

In a current (DC) circuit, electrons move in a direction around the circuit, travelling from the side of the power supply.

Note that this is the direction to conventional current. This is due to the fact that electrons have charge.

In an current (AC) circuit, electrons move
This can be represented by giving positive and negative values to the electrons' position at different moments in time. Current is therefore a quantity because it is measured with both and direction.

Although the electrons do not move around an AC circuit, they pass around the circuit. Even in a DC circuit, the electrons move only very slowly. We can imagine electrons going in relay around the circuit, passing-on the much more quickly that they can move themselves.

This is difference in behaviour is similar to the two different types of waves;

- In waves, the particles move back and forth, to the direction of the energy transfer.
- In waves the particles vibrate up and down, to the direction of the energy transfer.

In both cases, the movement of the particles that transfer the energy in a wave is separate from the movement of the energy itself. This is the same as the situation that applies to DC and AC electricity, where the actual movement of the electrons is separate from the movement of energy around the electric circuit.