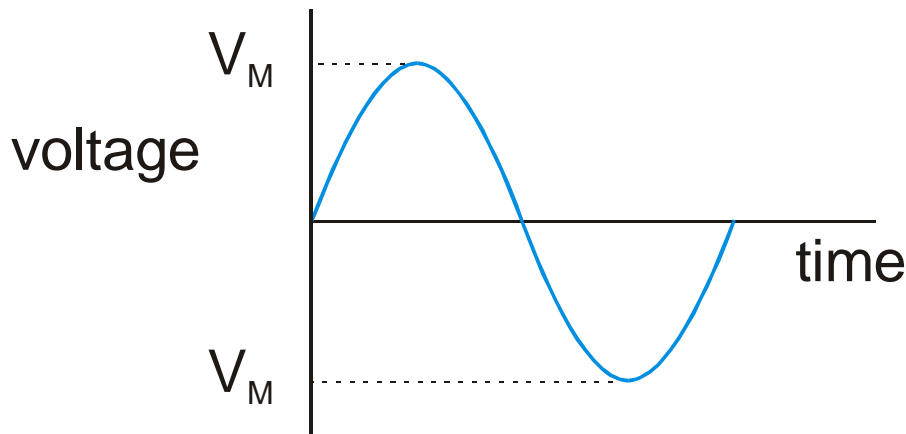


The Effective Value of an Alternating Current (or Alternating Voltage)

If we connect an alternating voltage supply to an oscilloscope we see



V_M is the **maximum** voltage

The voltage is always changing so the **effective voltage** (V_{Eff}) is obviously less than V_M .

The **effective value** of an alternating current (or voltage) is the **constant** current (or voltage) which would light a bulb **to the same brightness**.

The relation between V_{Eff} and V_M is

$$\frac{V_M}{V_{\text{Eff}}} = 1.41$$