Domestic electricity meter

The electricity meter measures the amount of electrical energy used in the home. The meter is calibrated in a unit called the kilowatt hour (kW h).

The amount of energy consumed in kilowatt-hours is calculated using the formula:

energy consumed (in kW h) = power (in kW) × time (in hours)

Since 1 kW = 1,000W and 1 hour = 3,600 seconds it follows that:

1 kW h = 1,000 W × 3,600 seconds = 3,600,000 J.