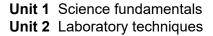


Level 3 Cambridge Technical in Applied Science 05847/05848/05849/05874/05879

Data sheet





INSTRUCTIONS

· Do not send this Data Sheet for marking. Keep it in the centre or recycle it.

INFORMATION

• This document has 2 pages.

Unit 1

Density (kg/m³) = mass (kg) ÷ volume (m³)

Current (A) = number of electrons per $m^3 \times cross$ -sectional area of conductor $(m^2) \times drift$ velocity $(m \ s^{-1}) \times electron \ charge \ (C)$

 $I = \Delta Q \div \Delta t$

Potential difference (V) = current (A) \times resistance (Ω)

Charge (C) = current (A) \times time (s)

Power (W) = energy (J) \div time (s)

Power (W) = potential difference (V) \times current (A)

Energy transferred (work done) (J) = charge (C) × potential difference (V)

Energy transferred (J, kWh) = power (W, kW) × time (s, h)

Area of a circle = πr^2

Circumference of a circle = $2\pi r$

Current flow:

Series $R_t = R_1 + R_2 + R_3$

Parallel $\frac{1}{R_1} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$

Unit 2

 $n = c \times V$

where:

c = concentration (mol dm⁻³)

n = number of moles

V = volume (dm³)

Magnification = measured size ÷ actual size



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