



KEPLER



BOLTZMANN



OHM



PAULI



MEITNER



SOMMERFELD



RUTHERFORD



ØRSTED



HODGKIN

## Units and dimensions

The five basic physical dimensions and their SI units are

Time	second (s)	
Length	metre (m)	
Mass	kilogram (kg)	
Temperature	kelvin (K)	
Electric current	ampere (A)	

  

Time	<b>second, s</b>	s
Frequency	hertz, Hz	s <sup>-1</sup>
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Length	<b>metre, m</b>	m
Area	metre × metre	m <sup>2</sup>
Volume	metre × metre × metre	m <sup>3</sup>
Speed, velocity	metre / second	m·s <sup>-1</sup>
Acceleration	metre / (second × second)	m·s <sup>-2</sup>
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Mass	<b>kilogram, kg</b>	kg
Density	kilogram / (metre × metre × metre)	kg·m <sup>-3</sup>
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Force	newton, N	kg·m·s <sup>-2</sup>
Energy, work, heat	joule, J (or N·m)	kg·m <sup>2</sup> ·s <sup>-2</sup>
Power	watt, W (or J·s <sup>-1</sup> )	kg·m <sup>2</sup> ·s <sup>-3</sup>
Pressure	pascal, Pa (or N·m <sup>-2</sup> )	kg·m <sup>-1</sup> ·s <sup>-2</sup>
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Temperature	<b>kelvin, K</b>	K
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Electric current	<b>ampere, A</b>	A
Electric charge	coulomb, C	A·s
Potential difference	volt, V (or J·C <sup>-1</sup> )	kg·m <sup>2</sup> ·A <sup>-1</sup> ·s <sup>-3</sup>
Resistance	ohm, Ω (or V·A <sup>-1</sup> )	kg·m <sup>2</sup> ·A <sup>-2</sup> ·s <sup>-3</sup>



LORENTZ



BARDEEN



FERMI



CLAUSIUS