Dimension	Quantity
$[M^0L^0T^{-1}]$	Frequency, angular frequency, angular velocity, velocity gradient and decay constant
$[M^1L^2T^{-2}]$	Work, internal energy, potential energy, kinetic energy, torque, moment of force
$[M^1L^{-1}T^{-2}]$	Pressure, stress, Young's modulus, bulk modulus, modulus of rigidity, energy density
$[M^1L^1T^{-1}]$	Momentum, impulse
$[M^0L^1T^{-2}]$	Acceleration due to gravity, gravitational field intensity
$[M^1L^1T^{-2}]$	Thrust, force, weight, energy gradient
$[M^1L^2T^{-1}]$	Angular momentum and Planck's constant
$[M^1L^0T^{-2}]$	Surface tension, Surface energy (energy per unit area)
$[M^0L^0T^0]$	Strain, refractive index, relative density, angle, solid angle, distance gradient, relative permittivity (dielectric constant), relative permeability etc.
$[M^0L^2T^{-2}]$	Latent heat and gravitational potential
$[ML^2T^{-2}\theta^{-1}]$	Thermal capacity, gas constant, Boltzmann constant and entropy
$[M^0L^0T^1]$	$\sqrt{l/g}, \sqrt{m/k}, \sqrt{R/g}$, where l = length g = acceleration due to gravity, m = mass, k = spring constant, R = Radius of earth
$[M^0L^0T^1]$	L/R, $\sqrt{LC}$, RC where L = inductance, R = resistance, C = capacitance
$[ML^2T^{-2}]$	$I^2Rt, \frac{V^2}{R}t, VIt, qV, LI^2, \frac{q^2}{C}, CV^2$ where I = current, t = time, q = charge, L = inductance, C = capacitance, R = resistance

Important Dimensions of Complete Physics

Heat

Quantity	Unit	Dimension

Quantity	Unit	Dimension
Temperature (*T*)	*Kelvin*	$[M^0L^0T^0\theta^1]$
Heat (*Q*)	*Joule*	$[ML^2T^{-2}]$
Specific Heat (*c*)	*Joule/kg-K*	$[M^0L^2T^{-2}\theta^{-1}]$
Thermal capacity	*Joule/K*	$[M^1L^2T^{-2}\theta^{-1}]$
Latent heat (*L*)	*Joule/kg*	$[M^0L^2T^{-2}]$
Gas constant (*R*)	*Joule/mol-K*	$[M^1L^2T^{-2}\theta^{-1}]$
Boltzmann constant (*k*)	*Joule/K*	$[M^1L^2T^{-2}\theta^{-1}]$
Coefficient of thermal conductivity (*K*)	*Joule/m-s-K*	$[M^1L^1T^{-3}\theta^{-1}]$
Stefan's constant (σ)	*Watt/m*^{2}*-K*^{4}	$[M^1L^0T^{-3}\theta^{-4}]$
Wien's constant (b)	*Metre-K*	$[M^0L^1T^0\theta^1]$
Planck's constant (*h*)	*Joule-s*	$[M^1L^2T^{-1}]$
Coefficient of Linear Expansion (α)	*Kelvin*$^{-1}$	$[M^0L^0T^0\theta^{-1}]$
Mechanical equivalent of Heat (*J*)	*Joule/Calorie*	$[M^0L^0T^0]$
Vander wall's constant (*a*)	*Newton-m*^{4}	$[ML^5T^{-2}]$
Vander wall's constant (*b*)	*m*^{3}	$[M^0L^3T^0]$

Electricity

Quantity	Unit	Dimension
Electric charge (*q*)	*Coulomb*	$[M^0L^0T^1A^1]$
Electric current (*I*)	*Ampere*	$[M^0L^0T^0A^1]$
Capacitance (*C*)	*Coulomb/volt or Farad*	$[M^{-1}L^{-2}T^4A^2]$
Electric potential (*V*)	*Joule/coulomb*	$[M^1L^2T^{-3}A^{-1}]$
Permittivity of free space (ε_0)	$\frac{Coulomb^2}{Newton - metre^2}$	$[M^{-1}L^{-3}T^4A^2]$
Dielectric constant (*K*)	Unitless	$[M^0L^0T^0]$
Resistance (*R*)	*Volt/Ampere* or *ohm*	$[M^1L^2T^{-3}A^{-2}]$
Resistivity or Specific resistance (ρ)	*Ohm-metre*	$[M^1L^3T^{-3}A^{-2}]$

Quantity	Unit	Dimension
Coefficient of Self-induction (*L*)	$\frac{volt-second}{ampere}$ or ***henry or ohm-second***	$[M^1L^2T^{-2}A^{-2}]$
Magnetic flux (ϕ)	***Volt-second*** or ***weber***	$[M^1L^2T^{-2}A^{-1}]$
Magnetic induction (*B*)	$\frac{newton}{ampere-metre}$ $\frac{Joule}{ampere-metre^2}$ $\frac{volt-\text{second}}{metre^2}$ or ***Tesla***	$[M^1L^0T^{-2}A^{-1}]$
Magnetic Intensity (*H*)	***Ampere/metre***	$[M^0L^{-1}T^0A^1]$
Magnetic Dipole Moment (*M*)	***Ampere-metre^2***	$[M^0L^2T^0A^1]$
Permeability of Free Space (μ_0)	$\frac{Newton}{ampere^2}$ or $\frac{Joule}{ampere^2-metre}$ or $\frac{Volt-\text{second}}{ampere-metre}$ or $\frac{Ohm-\text{second}}{metre}$ or $\frac{henry}{metre}$	$[M^1L^1T^{-2}A^{-2}]$
Surface charge density (σ)	$Coulomb\ metre^{-2}$	$[M^0L^{-2}T^1A^1]$
Electric dipole moment (*p*)	$Coulomb-metre$	$[M^0L^1T^1A^1]$
Conductance (*G*) (1/*R*)	ohm^{-1}	$[M^{-1}L^{-2}T^3A^2]$
Conductivity (σ) (1/ρ)	$ohm^{-1}metre^{-1}$	$[M^{-1}L^{-3}T^3A^2]$
Current density (*J*)	***Ampere/m^2***	$M^0L^{-2}T^0A^1$
Intensity of electric field (*E*)	***Volt/metre*, *Newton/coulomb***	$M^1L^1T^{-3}A^{-1}$
Rydberg constant (*R*)	***m^{-1}***	$M^0L^{-1}T^0$