SI Unit Posters

Version 1.0 (June 6, 2020)

Created by Glenwing in June of 2020

https://github.com/Glenwing

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- *Timeless* by Manfred Klein, a freely-distributed font
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Le Système International d'Unités

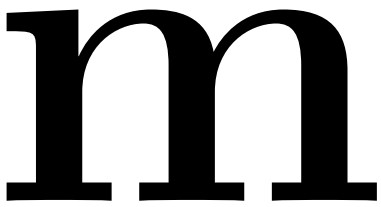
A tous les temps, à tous les peuples

For all times, for all peoples

S

Second

The span of time that passes during 9 192 631 770
unperturbed ground-state hyperfine transitions
of a caesium-133 atom



Metre

The distance traveled by light in vacuum
in a timespan of exactly 1/299 792 458 s

kg

Kilogram

The amount of mass such that the Planck constant h
is exactly equal to $6.626\,070\,15 \times 10^{-34}$ J·s ($\mathrm{kg \cdot m^2 \cdot s^{-1}}$)

K

Kelvin

The change in temperature which results in a change
in thermal energy of exactly $1.380\,649 \times 10^{-23}$ J
and 0 K is the temperature of absolute zero

A

Ampere

The movement of electric charge at a rate of exactly

$1/1.162\,176\,634 \times 10^{19}$ times the elementary charge e per second

cd

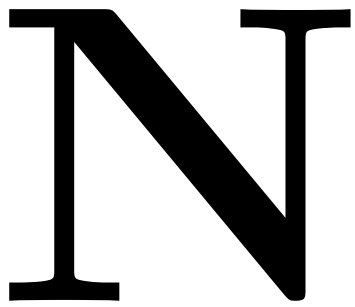
Candela

The luminous intensity such that the luminous efficacy
of monochromatic light of frequency 540×10^{12} Hz
is exactly equal to 683 lm/W ($\mathrm{cd} \cdot \mathrm{sr} \cdot \mathrm{kg}^{-1} \cdot \mathrm{m}^{-2} \cdot \mathrm{s}^{3}$)

mol

Mole

A collection of atoms, molecules, or particles
in the amount of exactly $6.022\,140\,76 \times 10^{23}$



Newton

The force required to accelerate a 1 kg object
to a velocity of 1 m/s at a uniform rate in 1 second

Pa

Pascal

The pressure applied by 1 N of force acting on a 1 m^2 area

J

Joule

The energy required to accelerate a 1 kg object
at 1 m/s^2 through a distance of 1 m

W

Watt

The transfer of energy at a rate of 1 J/s

C

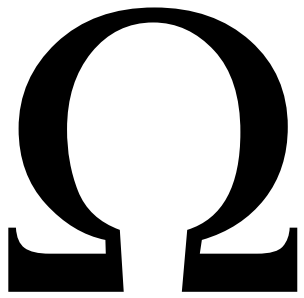
Coulomb

The electric charge of exactly $1.162\,176\,634 \times 10^{19}$ protons

V

Volt

The difference in electric potential between two points
in an electric field which imparts 1 J of energy
to 1 C of charge moving between the two points



Ohm

The electrical resistance between two points such that
a 1 V potential difference produces a 1 A electric current

F

Farad

The capacitance between two points such that
an electric potential difference of 1 V
results in a buildup of 1 C of stored charge

H

Henry

The inductance between two points such that
an electric current changing at a rate of 1 A/s
produces an electric potential difference of 1 V

Wb

Weber

The magnetic flux that, linking a circuit of one turn,
produces an electric potential difference of 1 V
when it is reduced to 0 at a uniform rate in 1 s

T

Tesla

The flux density of a magnetic field that applies 1 N of force to a 1 C charge moving through the field at 1 m/s

lm

Lumen

The concentration of visible light
passing through a solid angle of 1 steradian
emitted from a source with a luminous intensity of 1 cd

lx

Lux

The concentration of visible light on a surface equal to
a luminous flux of 1 lumen spread across an area of 1 m^2