

Common Energy Units

Name of unit	Symbol	Definition	Relation to SI units
British thermal unit (ISO)	BTU _{ISO}	$\equiv 1.0545 \times 10^3 \text{ J}$	$= 1.0545 \times 10^3 \text{ J}$
calorie (thermochemical)	cal _{th}	$\equiv 4.184 \text{ J}$	$= 4.184 \text{ J}$
electronvolt	eV	$\equiv e \times 1 \text{ V}$	$\approx 1.602\,177\,33 \times 10^{-19} \pm 4.9 \times 10^{-26} \text{ J}$
erg (cgs unit)	erg	$\equiv 1 \text{ g}\cdot\text{cm}^2/\text{s}^2$	$= 10^{-7} \text{ J}$
joule (SI unit)	J	$\equiv \text{m}\cdot\text{N} = \text{W}\cdot\text{s} = \text{V}\cdot\text{A}\cdot\text{s} = \text{kg}\cdot\text{m}^2/\text{s}^2$	$= 1 \text{ J}$