

Power

Power is the rate of energy transfer

$$P = \frac{W}{t}$$

We use W to represent the energy but because of the law of conservation of energy it can be any form of energy.

Power

Notice the symbol is uppercase (capitol) P
lowercase p is the symbol for momentum!
The units are J/s or Watts (abbreviated W)
Watts are the same as $\text{kg m}^2/\text{s}^3$

Power

In the English system power is often expressed as "horse power" (HP).

$$1 \text{ HP} = 746 \text{ W}$$

$$1 \text{ HP} = 550 \text{ lb ft/s}$$

Electrical energy is often sold as kilowatt hours (kW hr).

Power