

Power From Energy And Time Calculator

Convert watt-hours and elapsed hours into average power in watts and kilowatts without implying peak demand or equipment rating.

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<https://www.elecatrix.com/power-energy-cost/power-from-energy-time-calculator/>

Inputs

Input	Value	Unit
Energy used	240	Wh
Elapsed time	2	h

Results

Result	Value	Unit
Energy used	240	Wh
Time used	2	h
Average power	120	W
Average power	0.12	kW

Calculation details

Detail	Value	Unit
Calculation basis	Average power equals entered energy in watt-hours divided by entered elapsed time in hours.	
Boundary	Ideal average-power arithmetic only. It does not identify peak demand, duty-cycle variation, power factor, efficiency losses, thermal limits, equipment ratings, or billing treatment.	

Formulas

$$P_{avg, W} = \frac{E_{Wh}}{t_h}$$

$$P_{avg, kW} = \frac{P_{avg, W}}{1000}$$

Warnings and limitations

This is an average-power conversion. It does not determine peak demand, inrush current, duty-cycle variation, power factor, efficiency, conductor ampacity, breaker size, or equipment rating.