

Inverter Efficiency Calculator

Estimate inverter efficiency, loss power, and loss percent from matching DC input and AC output power values.

Generated October 9, 2026

<https://www.elecatrix.com/solar-backup-power/inverter-efficiency-calculator/>

Inputs

Input	Value	Unit
DC input power	1000	W
AC output power	920	W

Results

Result	Value	Unit
Efficiency	0.92	x
Efficiency	92	%
Loss power	80	W
Loss percent	8	%

Calculation details

Detail	Value	Unit
Calculation basis	Inverter efficiency equals AC output power divided by DC input power. Loss is DC input power minus AC output power.	
Screening boundary	Inverter efficiency arithmetic only; no waveform, surge, temperature, load curve, product listing, or manufacturer test condition is applied.	

Formulas

efficiency ratio = AC output power W / DC input power W

efficiency percent = efficiency ratio x 100

loss power W = DC input power W - AC output power W

Warnings and limitations

This is inverter efficiency arithmetic only. It does not certify inverter rating, thermal performance, waveform quality, surge capability, or manufacturer test conditions.