

AC VA From Voltage And Current Calculator

Calculate single-phase AC apparent power in volt-amperes from RMS voltage and RMS current without applying a power-factor adjustment.

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<https://www.elecatrix.com/voltage-current-resistance/ac-va-from-voltage-current-calculator/>

Inputs

Input	Value	Unit
RMS voltage	120	V
RMS current	10	A

Results

Result	Value	Unit
Apparent power	1200	VA
Voltage used	120	V
Current used	10	A

Calculation details

Detail	Value	Unit
Calculation basis	Apparent power VA = RMS voltage V x RMS current A.	
Review boundary	Single-phase RMS apparent-power arithmetic only; no power factor, real-power, phase multiplier, waveform, harmonics, equipment rating, conductor sizing, protection, utility, or code-compliance result is made.	

Formulas

$$S = V_{\text{RMS}} \times I_{\text{RMS}}$$

Warnings and limitations

This is a single-phase RMS apparent-power estimate. It does not determine active watts, conductors, overcurrent protection, equipment, service capacity, or code compliance.