

Available Fault Current Calculator

Calculate transformer-limited available fault current and compare it with an entered equipment rating using known transformer kVA, secondary voltage, impedance, phase, and source multiplier values.

Generated October 10, 2026

<https://www.elecatrix.com/testing-protection-grounding/available-fault-current-calculator/>

Inputs		
Input	Value	Unit
Transformer size	500	kVA
Secondary voltage	480	V
Phase count	Three phase	phase
Transformer impedance	5.75	%
Entered source multiplier	100	%
Source multiplier basis	User-entered	
Entered equipment rating	22000	A
Results		
Result	Value	Unit
Full-load current	601.4065	A
Transformer-limited fault current	10459.244	A
Adjusted available fault current	10459.244	A
Equipment rating margin	11540.756	A
Calculation details		
Detail	Value	Unit
Calculation basis	Available-fault-current calculation uses entered transformer source values and entered multiplier.	
Review boundary	Impedance comparison only; no utility/study data, motor contribution, X/R, equipment duty, or code approval is made.	
Formulas		

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$$I_{FL} = \frac{\text{Transformer kVA} \times 1000V_{\text{secondary}} \times \text{phase multiplier}}{}$$

$$I_{TF} = \frac{I_{FLZ\%}}{100}$$

$$I_{AFC} = I_{TF} \times \frac{\text{source multiplier}}{100}$$

$$\text{rating margin} = I_{\text{rating}} - I_{AFC}$$

Warnings and limitations

Impedance comparison only; this calculator does not replace a short-circuit study, utility data, motor contribution, X/R adjustment, equipment duty evaluation, or code compliance.