

Ground Fault Current Calculator

Estimate prospective and factored ground-fault current from entered voltage, impedance, and screening factor for preliminary review.

Generated October 10, 2026

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

Inputs

Input	Value	Unit
Fault voltage	480	V
Fault-loop impedance	0.12	ohm
Screening factor	80	%

Results

Result	Value	Unit
Prospective fault current	4000	A
Factored fault current	3200	A
Fault voltage used	480	V
Loop impedance used	0.12	ohm

Calculation details

Detail	Value	Unit
Calculation basis	Prospective fault current equals entered fault voltage divided by entered loop impedance, then multiplied by the entered screening factor.	
Boundary	Fault-current screening only; no available fault current study, interrupting rating, protective-device coordination, arc-flash, or code result is made.	

Formulas

prospective fault current = fault voltage / loop impedance

factored current = prospective current x factor / 100

Warnings and limitations

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