

Step And Touch Voltage Screen Calculator

Compare grid potential rise, step voltage, and touch voltage with project-entered limits without issuing a personnel-safety conclusion.

Generated October 10, 2026

<https://www.elecatrix.com/testing-protection-grounding/step-touch-voltage-screen-calculator/>

Inputs

Input	Value	Unit
Fault current	1000	A
Grid resistance	0.4	ohm
Step fraction	20	%
Touch fraction	50	%
Entered step limit	100	V
Entered touch limit	100	V

Results

Result	Value	Unit
Grid potential rise	400	V
Step voltage screen	80	V
Touch voltage screen	200	V
Step margin	20	V
Touch margin	-100	V

Status

Status	Value	Unit
Step comparison	At or below entered step limit	
Touch comparison	Above entered touch limit	

Calculation details

Detail	Value	Unit
Calculation basis	The calculation multiplies entered fault current by entered grid resistance, then applies the entered step and touch fractions.	

Step And Touch Voltage Screen Calculator

Compare grid potential rise, step voltage, and touch voltage with project-entered limits without issuing a personnel-safety conclusion.

Generated October 10, 2026

<https://www.elecatrix.com/testing-protection-grounding/step-touch-voltage-screen-calculator/>

Boundary

Screen only; this does not establish a safe work limit, personnel protection method, field measurement, or code-compliance result.

Formulas

Grid potential rise = Fault current x Grid resistance

Step voltage = Grid potential rise x (Step fraction/100)

Touch voltage = Grid potential rise x (Touch fraction/100)

Margin = Entered limit - Screened voltage

Warnings and limitations

This estimate provides comparison values only. It does not establish a safe work limit, a personnel-safety limit, or an engineering approval.