

Insulation Test Voltage Calculator

Compare entered insulation test voltage with equipment rating and a documented procedure window without selecting the required test voltage.

Generated October 10, 2026

<https://www.elecatrrix.com/testing-protection-grounding/insulation-test-voltage-calculator/>

Inputs

Input	Value	Unit
Equipment rated voltage	480	V
Entered test voltage	500	V
Entered minimum test voltage	250	V
Entered maximum test voltage	1000	V

Results

Result	Value	Unit
Test-to-rated ratio	1.0417	
Low margin	250	V
High margin	500	V
Window width	750	V
Window comparison	Within entered test window	

Calculation details

Detail	Value	Unit
Calculation basis	Insulation test voltage worksheet compares entered test voltage with entered procedure window values.	
Testing boundary	Voltage-window comparison only; required test voltage, isolation, discharge, electronics protection, and safety procedure remain external.	

Formulas

test-to-rated ratio = entered test voltage / equipment rated voltage

low margin = entered test voltage - entered minimum test voltage

high margin = entered maximum test voltage - entered test voltage

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window width = entered maximum test voltage - entered minimum test voltage

Warnings and limitations

This page does not select a required insulation-test voltage, approve a test procedure, or verify equipment suitability or safety.