

Arc Flash Study Scenario Comparison Calculator

Compare two compatible arc-flash study records by method, units, availability, source, absolute difference, and percentage difference without recalculating incident energy.

Generated October 10, 2026

<https://www.elecatrix.com/testing-protection-grounding/arc-flash-study-scenario-comparison-calculator/>

Inputs

Input	Value	Unit
Scenario A method and version	study-method-v1	
Scenario B method and version	study-method-v1	
Scenario A unit basis	kJ/cm2	
Scenario B unit basis	kJ/cm2	
Scenario A value status	Present	
Scenario B value status	Present	
Scenario A value	4.2	entered unit
Scenario B value	5	entered unit
Scenario A source record	record-a	
Scenario B source record	record-b	

Results

Result	Value	Unit
Absolute difference	0.8	entered unit
Percent difference	16	%
Known values	2	count
Basis comparison	comparable	
Comparison result	entered_values_comparable	
Source note	sources_recorded	

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Calculation details

Detail	Value	Unit
Calculation basis	The worksheet compares two recorded values only after method, unit, status, and source fields match.	
Review boundary	Record comparison only; this does not calculate incident energy, a required boundary, a label, PPE, or an energized-work conclusion.	

Formulas

$\Delta = |A - B|$

$\text{Percent difference} = (\Delta / \max(\text{lvert Arvert}, \text{lvert Brvert})) \times 100\%$

$N_{\text{known}} = \text{count}(\text{scenario values marked present})$

Comparable iff basis and source records match

Warnings and limitations

Specialist-gated record comparison only; it does not calculate incident energy or a required boundary.