

# Thermal Scan Temperature Difference Calculator

Estimate ambient rise, absolute temperature difference, and threshold margin from component, ambient, and reference temperatures.

Generated October 10, 2026

<https://www.elecatrrix.com/testing-protection-grounding/thermal-scan-temperature-difference-calculator/>

## Inputs

| Input                           | Value | Unit |
|---------------------------------|-------|------|
| Component temperature           | 68    | C    |
| Ambient temperature             | 25    | C    |
| Reference component temperature | 42    | C    |
| Review delta threshold          | 30    | C    |

## Results

| Result                   | Value | Unit |
|--------------------------|-------|------|
| Ambient rise             | 43    | C    |
| Reference delta          | 26    | C    |
| Absolute reference delta | 26    | C    |
| Threshold margin         | 4     | C    |

## Status

| Status                 | Value                                                | Unit |
|------------------------|------------------------------------------------------|------|
| Temperature comparison | At or below entered temperature-difference threshold |      |

## Calculation details

| Detail             | Value                                                                                                            | Unit |
|--------------------|------------------------------------------------------------------------------------------------------------------|------|
| Calculation basis  | The calculation subtracts ambient and comparable reference temperatures from the measured component temperature. |      |
| Screening boundary | Thermography arithmetic only; emissivity, load, severity, camera setup, and repair decisions remain external.    |      |

## Formulas

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Ambient rise = Measured component temperature - Ambient temperature

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Reference delta = Measured component temperature - Reference component temperature

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Absolute reference delta = |Reference delta|

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Threshold margin = Entered review threshold - Absolute reference delta

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## Warnings and limitations

This estimate does not diagnose overheating, assign severity, account for emissivity or load, or approve continued operation.