

Wire Derating Calculator

Apply user-supplied ambient-temperature and bundling multipliers to a verified base ampacity and review the resulting adjusted ampacity. Conductor count remains a grouping review flag; the calculation does not select a code table or a final conductor size.

Generated October 10, 2026

<https://www.elecatrrix.com/wire-raceway-ampacity/wire-derating-calculator/>

Inputs

Input	Value	Unit
User-supplied base ampacity	100	A
User-supplied ambient temperature factor	0.82	x
User-supplied bundling factor	0.8	x
Current-carrying conductor count	3	
Derating factor source note	Example only; replace with verified project source.	

Results

Result	Value	Unit
Adjusted ampacity estimate	65.6	A
Combined factor decimal	0.656	x
Combined factor percent	65.6	%

Status

Status	Value	Unit
Grouping check	N/A	

Calculation details

Detail	Value	Unit
Conductor count review role	Conductor count is a review flag only; it does not automatically select a bundling factor.	
Final selection boundary	No code-compliant conductor or wire size selection is made by this calculator.	

Formulas

$$F_{combined} = F_{ambient} \times F_{bundling}$$

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$A_{\text{adjusted}} = A_{\text{base}} \times F_{\text{combined}}$

$F_{\text{combined,percent}} = F_{\text{combined}} \times 100$

conductor count is a review flag only; it does not automatically select a bundling factor

final selection boundary = no code-compliant conductor or wire size selection is made by this calculator

Warnings and limitations

This is a transparent derating estimate, not a code-compliance determination. It does not reproduce ampacity, correction, or adjustment-factor tables. Verify the source of each factor, adopted NEC edition, AHJ interpretation, conductor conditions, terminal limits, equipment instructions, manufacturer data, and local requirements separately.