

Terminal Temperature Limit Check Calculator

Compare an entered terminal ampacity with the load-driven requirement after continuous-load adjustment and any spare margin.

Generated October 10, 2026

<https://www.elecatrix.com/wire-raceway-ampacity/terminal-temperature-limit-check-calculator/>

Inputs

Input	Value	Unit
Load current	80	A
Entered terminal ampacity	115	A
Continuous load share	100	%
Continuous-load multiplier	125	%
Spare margin	N/A	%

Results

Result	Value	Unit
Continuous current	80	A
Noncontinuous current	N/A	A
Required ampacity	100	A
Required ampacity with spare	100	A
Terminal margin	15	A
Utilization	86.9565	%

Status

Status	Value	Unit
Terminal comparison	At or below entered terminal ampacity	

Calculation details

Detail	Value	Unit
Calculation basis	Continuous current is multiplied by the entered continuous-load factor, then optional spare margin is applied to the required ampacity.	

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Terminal boundary

Screening estimate only; verify conductor temperature ratings, terminal listings, equipment instructions, continuous-load rules, and adopted code requirements separately.

Formulas

Continuous current = Load current x (Continuous load share/100)

Required ampacity = Noncontinuous current + Continuous current x (Continuous-load multiplier/100)

Required ampacity with spare = Required ampacity x (1 + (Spare margin/100))

Terminal margin = Entered terminal ampacity - Required ampacity with spare

Warnings and limitations

This is a terminal ampacity screening comparison from user-entered assumptions. It does not select conductor insulation, determine equipment terminal ratings, or replace adopted code and manufacturer review.