

Continuous Load Calculator

Estimate adjusted continuous-load current and VA from entered load current, continuous portion, multiplier, voltage, phase, and available ampacity.

Generated October 10, 2026

<https://www.elecatrix.com/commercial-industrial-loads/continuous-load-calculator/>

Inputs

Input	Value	Unit
Load current	32	A
Continuous portion	100	%
Continuous multiplier	125	%
System voltage	240	V
Phase	Single-phase	
Entered ampacity	50	A

Results

Result	Value	Unit
Continuous current	32	A
Noncontinuous current	N/A	A
Adjusted current	40	A
Connected load	7680	VA
Adjusted load	9600	VA
Entered ampacity margin	10	A

Status

Status	Value	Unit
Ampacity comparison	Within entered ampacity	

Calculation details

Detail	Value	Unit
Calculation basis	Adjusted current equals noncontinuous current plus continuous current multiplied by the entered continuous-load factor.	

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Selection boundary

Continuous load estimate only; no breaker, conductor, terminal, equipment listing, local code, or inspection approval result is made.

Formulas

Continuous current = load current x (continuous portion (%)/100)

Noncontinuous current = load current - continuous current

Adjusted current = noncontinuous current + continuous current x (multiplier (%)/100)

Phase multiplier = 1 for single-phase, sqrt(3) for balanced three-phase

Adjusted VA = adjusted current x voltage x phase multiplier

Ampacity margin = entered ampacity - adjusted current

Warnings and limitations

This continuous load estimate is an arithmetic comparison. It does not select a breaker, conductor, terminal rating, equipment rating, or prove code compliance.