

Breaker Size Calculator

Apply an entered continuous-load factor to a load schedule and compare the adjusted current with a selected breaker rating without choosing a device automatically.

Generated October 10, 2026

<https://www.elecatrrix.com/testing-protection-grounding/breaker-size-calculator/>

Inputs

Input	Value	Unit
Noncontinuous load	20	A
Continuous load	16	A
Continuous-load factor	125	%
Selected breaker rating	45	A
Source reference	breaker-record-a	

Results

Result	Value	Unit
Adjusted load	40	A
Selected breaker rating	45	A
Rating margin	5	A
Selected rating utilization	88.8889	%
Source note	source_recorded	

Calculation details

Detail	Value	Unit
Calculation basis	The screen adds noncontinuous load to continuous load multiplied by the entered factor.	
Selection boundary	Entered-value worksheet only; no device table, interrupting rating, coordination, listing, or final protection result is made.	

Formulas

$$I_{adjusted} = I_{noncontinuous} + I_{continuous} \times \frac{F_{continuous}-1}{100}$$

$$M_{rating} = I_{selected} - I_{adjusted}$$

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$$\text{utilization} = \frac{I_{\text{adjusted}}}{I_{\text{selected}}} \times 100$$

Warnings and limitations

Entered-value worksheet only; verify the adopted method, device data, interrupting rating, coordination, listing, and qualified review separately.