

Parallel Raceway Ampacity Calculator

Estimate equal current sharing and adjusted ampacity margin from the entered parallel-raceway count, ampacity, and adjustment factor.

Generated October 10, 2026

<https://www.elecatrix.com/wire-raceway-ampacity/parallel-raceway-ampacity-calculator/>

Inputs		
Input	Value	Unit
Total load current	400	A
Parallel raceways	2	raceways
Entered ampacity per raceway	230	A
Entered adjustment factor	100	%
Results		
Result	Value	Unit
Current per raceway	200	A
Adjusted ampacity per raceway	230	A
Total adjusted ampacity	460	A
Ampacity margin	60	A
Utilization	86.9565	%
Ampacity comparison	Within entered adjusted ampacity	
Calculation details		
Detail	Value	Unit
Calculation basis	Total load current is divided equally across the entered number of parallel raceways. The entered per-raceway ampacity is multiplied by the entered adjustment factor.	
Ampacity boundary	Screening estimate only; verify conductor parallel rules, raceway grouping, derating, termination temperature, equipment listing, and adopted code requirements separately.	

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Formulas

$\text{current per raceway} = \text{total load current} / \text{parallel raceway count}$

$\text{adjusted ampacity per raceway} = \text{entered ampacity per raceway} \times \text{adjustment factor}$

$\text{total adjusted ampacity} = \text{adjusted ampacity per raceway} \times \text{parallel raceway count}$

$\text{ampacity margin} = \text{total adjusted ampacity} - \text{total load current}$

Warnings and limitations

This is a transparent ampacity comparison using user-entered ampacity and adjustment assumptions. It does not determine whether conductors may be paralleled or replace adopted code, equipment, and installation review.