

Industrial Branch Load Calculator

Estimate adjusted branch VA and line current from explicit load, demand, continuous, voltage, and phase inputs.

Generated October 10, 2026

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

Inputs

Input	Value	Unit
Connected branch load	24000	VA
Demand factor	80	%
Continuous multiplier	125	%
System voltage	480	V
Phase model	Balanced three phase	

Results

Result	Value	Unit
Adjusted branch load	24000	VA
Branch current	28.8675	A
Phase multiplier	1.7321	x

Calculation details

Detail	Value	Unit
Calculation basis	Industrial branch screening applies the entered demand factor and continuous multiplier to connected VA, then estimates RMS line current.	
Boundary	Industrial branch-load screening only; no motor starting, harmonics, conductor, protection, equipment, or code result is made.	

Formulas

$$\text{adjusted VA} = \text{connected VA} \times \text{demand} / 100 \times \max(1, \text{continuous} / 100)$$

$$\text{current} = \text{adjusted VA} / (\text{phase multiplier} \times \text{voltage})$$

Warnings and limitations

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