

Control Relay Contact Load Calculator

Calculate screening-only relay contact load and compare it with an entered contact rating.

Generated October 10, 2026

<https://www.elecatrix.com/circuits-components/control-relay-contact-load-calculator/>

Inputs

Input	Value	Unit
Contact voltage	24	V
Contact current	0.5	A
Entered contact rating	24	VA

Results

Result	Value	Unit
Contact load	12	VA
Rating utilization	50	%
Remaining entered rating	12	VA

Entered rating status

At or below entered contact rating

Calculation details

Detail	Value	Unit
Calculation basis	Contact apparent load is voltage multiplied by current. Utilization compares that entered VA load with the entered contact rating.	
Screening boundary	Arithmetic screening only; verify contact rating type, load inrush, inductive or capacitive behavior, duty, switching frequency, suppression, listing, and manufacturer instructions.	

Formulas

contact load VA = contact voltage V x contact current A

rating utilization percent = contact load VA / contact rating VA x 100

remaining entered rating VA = contact rating VA - contact load VA

Warnings and limitations

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This is a relay-contact arithmetic screen. It does not approve a relay, contact, load type, switching duty, inrush, suppression method, listing, or installation.