

Reactance Calculator

Compare XL, XC, and net reactance from entered frequency, inductance, and capacitance for circuit review.

Generated October 10, 2026

<https://www.elecatrix.com/circuits-components/reactance-calculator/>

Inputs

Input	Value	Unit
Frequency	60	Hz
Inductance	10	mH
Capacitance	10	uF

Results

Result	Value	Unit
Inductive reactance	3.7699	ohm
Capacitive reactance	265.2582	ohm
Net reactance	-261.4883	ohm

Status

Status	Value	Unit
Reactance type	capacitive	

Calculation details

Detail	Value	Unit
Calculation basis	Inductive reactance is $2 \pi f L$ and capacitive reactance is 1 divided by $2 \pi f C$ after unit conversion.	
Boundary	Mode arithmetic only; verify component tolerance, frequency behavior, waveform, ratings, and system context separately.	

Formulas

$$X_L = 2\pi f L$$

$$X_C = (1/2\pi f C)$$

$$X_{net} = X_L - X_C$$

Warnings and limitations

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Mode arithmetic only; verify frequency, component data, parasitics, waveform, ratings, and design context separately.