

Inductor Parallel Value Calculator

Combines two or three uncoupled parallel inductors into an ideal equivalent inductance while leaving current sharing and component ratings separate.

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<https://www.elecatrix.com/circuits-components/inductor-parallel-value-calculator/>

Inputs

Input	Value	Unit
Inductance 1	10	mH
Inductance 2	10	mH
Inductance 3 (optional)	N/A	mH

Results

Result	Value	Unit
Equivalent inductance	5	mH
Participating inductors	2	count

Calculation details

Detail	Value	Unit
Calculation basis	Parallel inductors are combined by adding their reciprocals when mutual coupling is excluded.	
Boundary	Ideal uncoupled-inductor arithmetic only; verify mutual coupling, saturation, winding resistance, current rating, and frequency behavior.	

Formulas

$$\text{frac1L_eq} = (1/L_1) + (1/L_2) + (1/L_3)$$

L_3 is omitted when its input is 0

Warnings and limitations

This is ideal uncoupled-inductor arithmetic. Verify mutual coupling, saturation, winding resistance, current rating, and frequency before applying it to hardware.