

RLC CIRCUIT DATA SHEET

frequency f [Hz]	resultant voltage U _{LRC} []	current I []	capacitor voltage U _C []	inductor voltage U _{LR} []
400				
600				
700				
750				
800				
850				
900				
950				
980				
1000				
1020				
1050				
1100				
1150				
1200				
1250				
1300				
1350				
1400				
1500				
2000				

Evaluation

f [Hz]	U _{LR} []	U _C []	U _{LR} + U _C []	U _{LRC} []
800				
1000				
1200				

The capacitance C: frequency chosen for the calculation: f =

$$\frac{U_C}{I} = Z_C = \frac{1}{2\pi f C} \rightarrow C =$$

The inductivity L: frequency chosen for the calculation: f =

$$\frac{U_{LR}}{I} = Z_{LR} \approx 2\pi f L \rightarrow L =$$

The resonant frequency from the graph I vs. f: f₀ =

The resonant frequency from the Thomson formula: f₀ = $\frac{1}{2\pi} \cdot \frac{1}{\sqrt{LC}}$ =