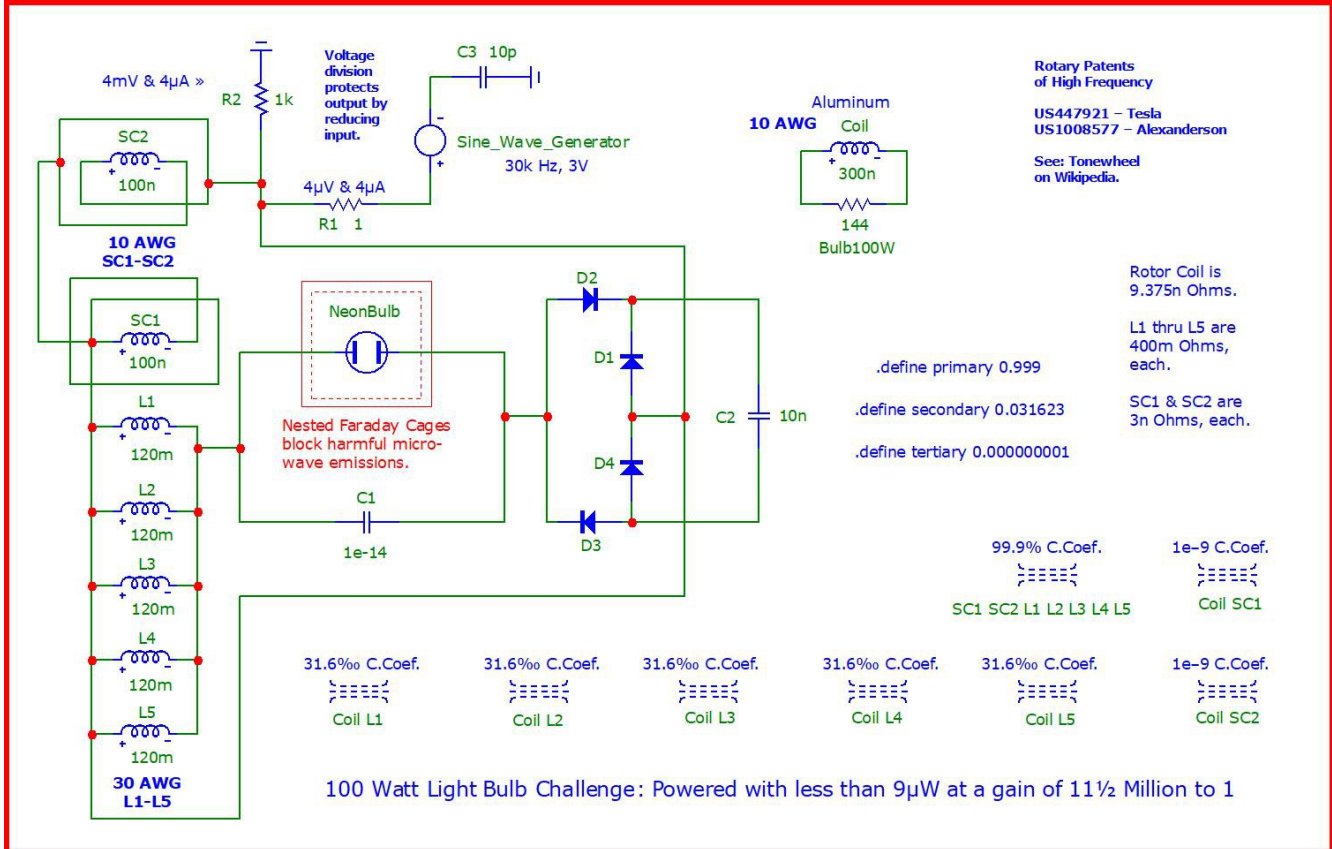
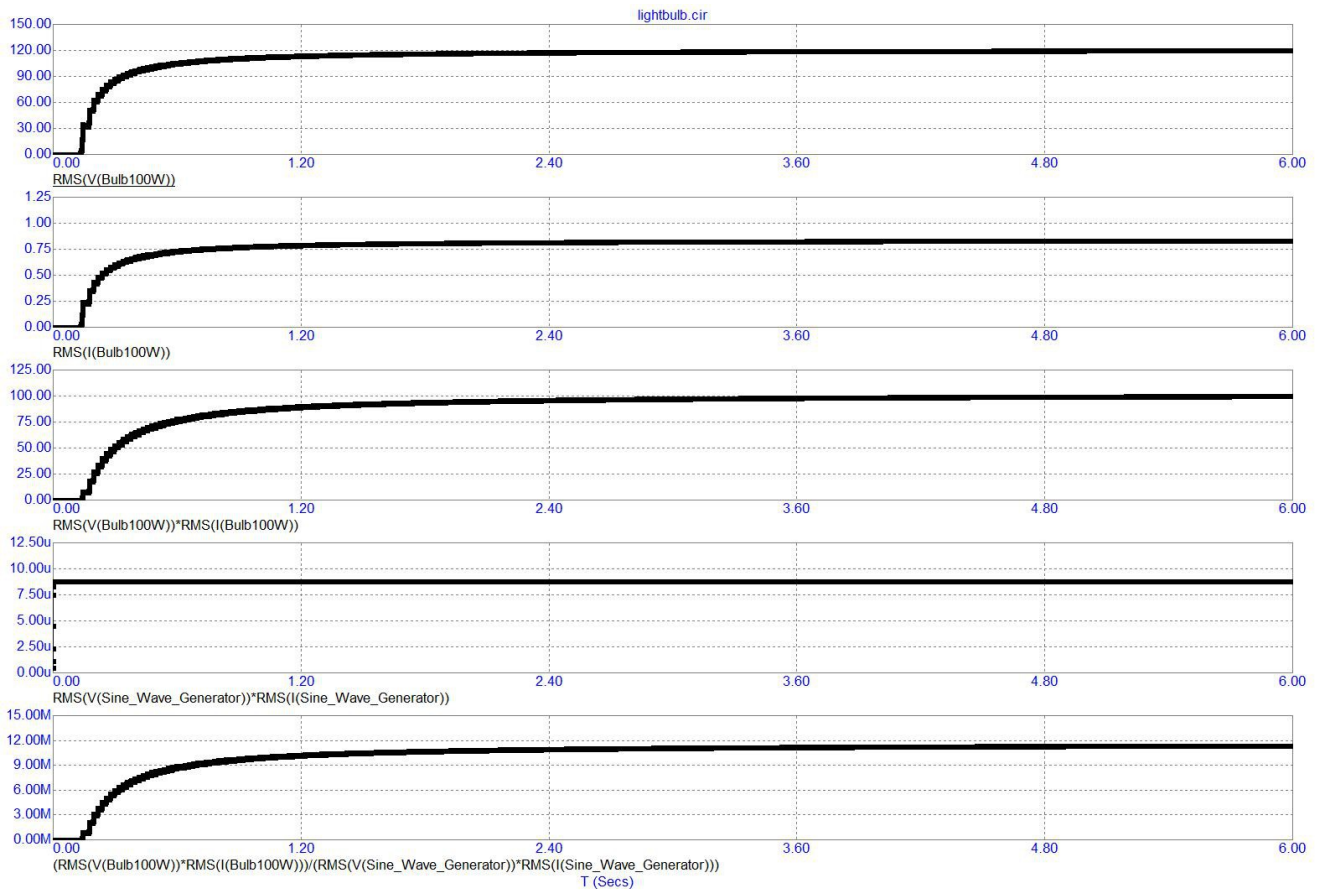
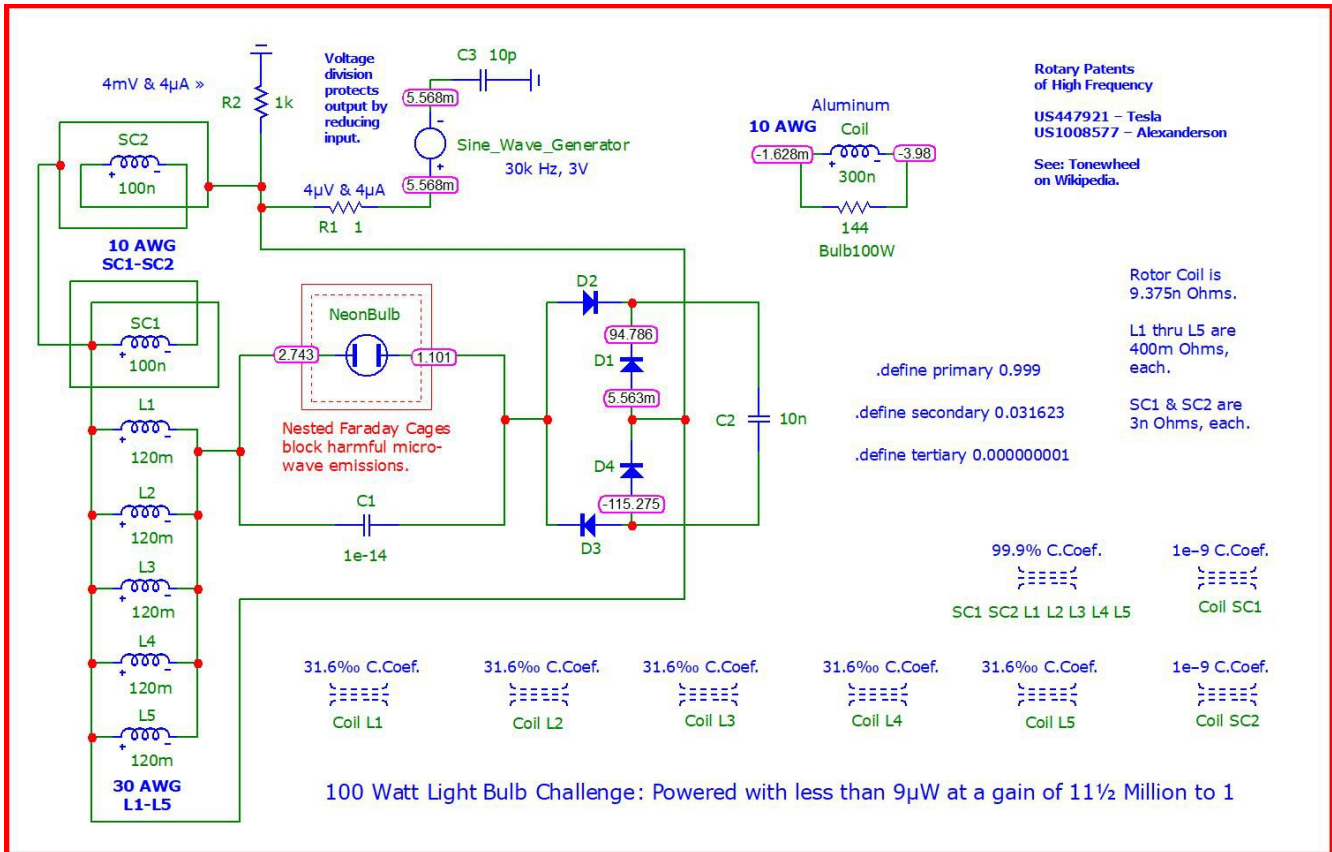
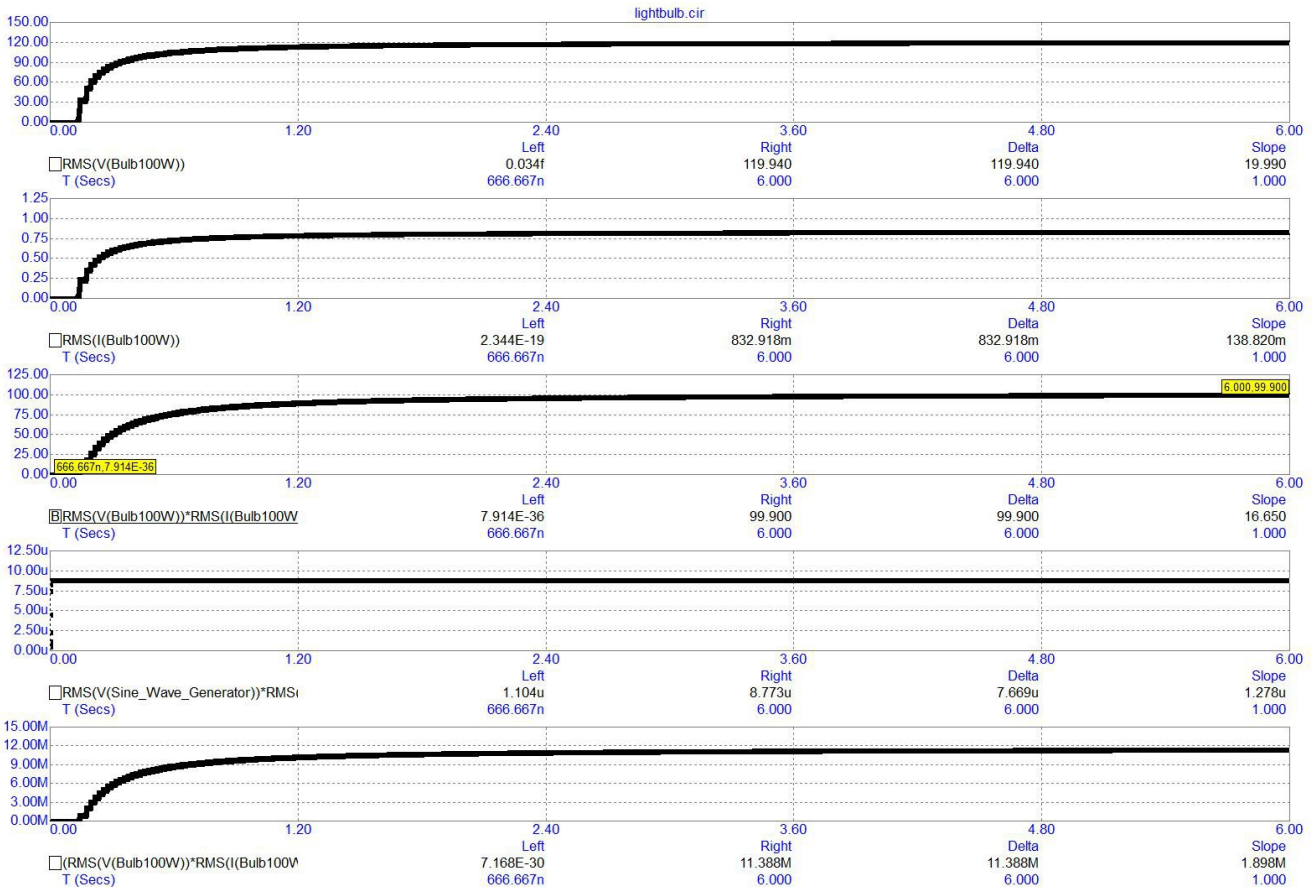
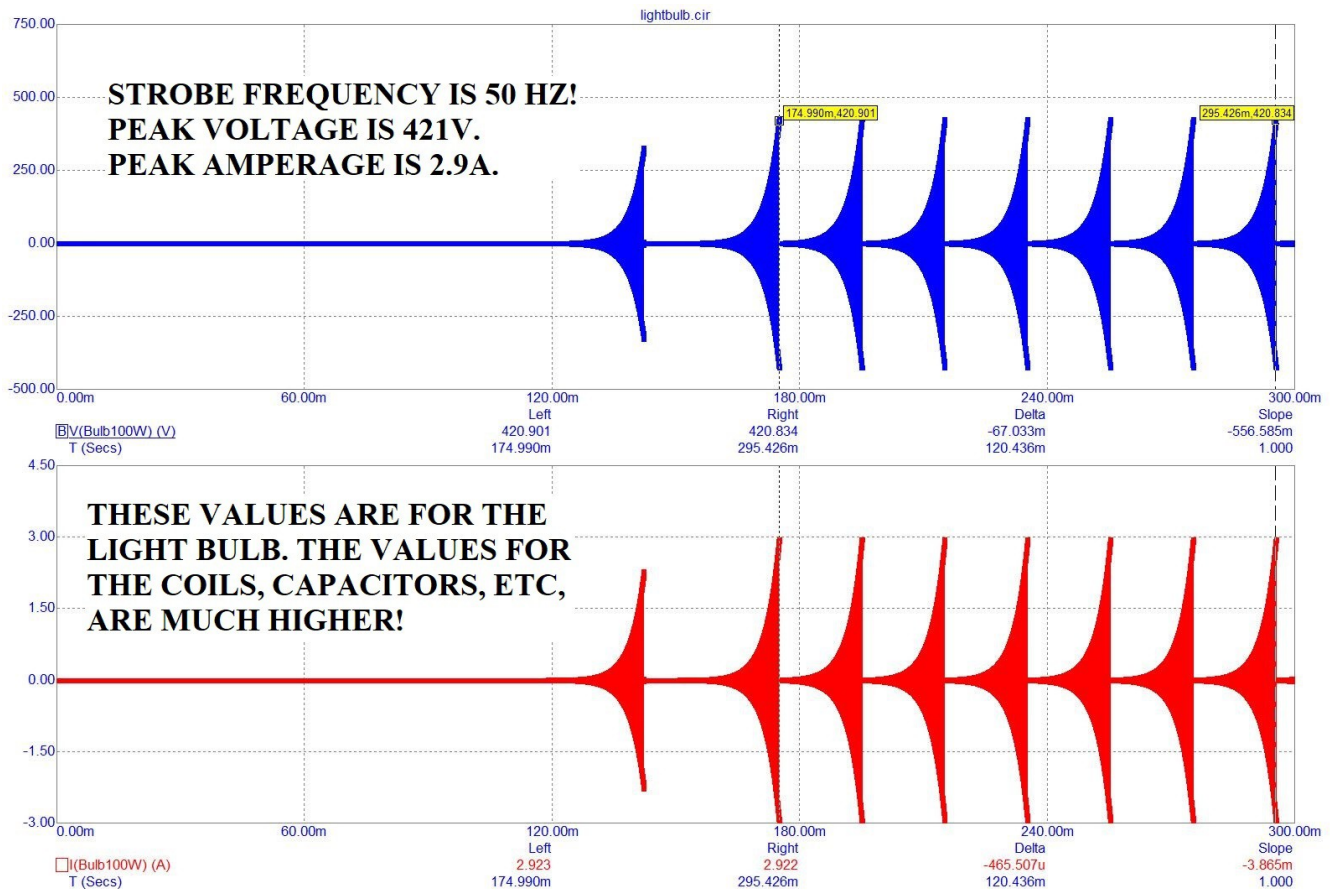


# 100-Watt Light Bulb Challenge: Powered with less than $9\mu\text{W}$ at a gain of $11\frac{1}{2}$ Million to 1.









## Explanation

Convention dictates that reactive power output always equals real power input predicated upon the presumption that energy is conserved. Yet, reactance is not energy!

Reactive power (the VARs of reactance) arises from the valence electron volts which binds atoms together creating objects that we can see and touch, for instance: a coil of wire.

Reactive power output closely equals real power input only if the input is high enough to suppress the over-reactance of negative impedance in which the circuit begins to generate more power than its input. This type of surge can escalate at an exponential rate and destroy equipment if not checked by a periodic collapse.

Using the magic of proportional relationships which reflect the properties of the Golden Ratio, it is possible to integrate a set of coils using mathematically precise magnetic couplings and protect the circuit from runaway explosions within a narrow window of delicate balances involving all of the parameters of design (input frequency, self-inductances, etc).

1. Choose a magnetic coupling less than 100% and greater than or equal to the Golden Ratio of 61.8%. In this example, above, I chose to use a primary coupling of 99.9% for the purposes of this demonstration which is simulated<sup>1</sup> in Micro-Cap 12.<sup>2</sup>
2. For a secondary coupling, subtract the primary coupling from 100% and take its square root. In this case, 31.6% becomes the secondary coupling.

<sup>1</sup> [Upload files for free - lightbulb\\_challenge.zip - ufile.io](https://ufile.io/lightbulb_challenge.zip)

<sup>2</sup> [MicroCap 12 \(12.2.0.5\) : Spectrum Software : Free Download, Borrow, and Streaming : Internet Archive](https://www.spectrum-soft.com/microcap12/)

3. For the third coupling, subtract the primary coupling from 100% and raise it to the cube power. Tweak if necessary. In this example, it is: one nano ( $1e-9$ ).

**WARNING: THIS TYPE OF CIRCUIT CAN EXPLODE JUST AS EASILY AS IT CAN BECOME COMATOSE DEPENDING UPON ON ALL OF THE PARAMETERS. THESE SIMULATIONS MAY NOT BE ACCURATE AT REPRESENTING PHYSICAL REALITY. BEWARE!**

The simplest method of utilizing the useless (lossless) power of reactance is to pass it through a resistive load, such as: a 100-watt incandescent light bulb (suggested in this challenge) and, thus, convert it into real power after it has already been amplified via electrical and magnetic reactances.

This is the proverbial “quarterback end run” of overunity. Don’t try to contradict Conservation of Energy when it is so much easier to expand or contract reactive power under conditions of input starvation.<sup>3</sup>