The Reactive Gap

The action of the magnetic field traveling through the tubing that connects the two copper spheres is not merely a reciprocating action along the entire length of the tubing (resulting from the Venturi effect) so much as it is also a circular electromagnetic motion encircling the copper tube based on the analogous action of a single phase induction motor which does not merely reciprocate. In fact, once it starts rotating in any specific direction, the reciprocating action of the electromagnetic field induced in its motor coils becomes circular similar to the CAM shaft in an internal combustion engine.

In other words, the alternation of voltage polarity along the length of the copper tubing converts into electromagnetic circular rotation across a cross-section of this tubing and at right angles to the alternating field of dielectricity stretched out along the length of the tubing. Even though this dielectric field alternates, the direction of rotation of the electromagnetic field does not. The EM field continues to rotate in one direction, only. *{But this is on the presumption that only a single strand of tubing is inserted into the interior of the iron wound transformer. But as you'll see below, this situation is actually a bit more complicated. But at least we're off to a good, simple start!}*

Likewise, does the magnetic field of the tubing (linking the two copper spheres) also act like a ratchet wrench accelerating with every reciprocation of the dielectric field until it reaches its limit of endurance induced by the materials and geometry of construction.

Reciprocation of the noble gas vibrating ever so slightly (but ever so quickly) along the entire length of the copper tubing (due to Venturi effect) is the causal motion. The circular EM motion is the effective motion. Both motions combine to create a slightly complex set of actions.

The iron wire of the transformer (surrounding the copper tubing) has its magnetic quality of its iron wire accelerated to induce a very strong magnetic field surrounding their transformer inside the barrel (or drum) strapped to the front end of the Ammann brothers‘ EV.

In fact, they have created the electromagnetic equivalent to a ¡tornado!...affecting everything within a 10 mile radius according to the newspaper reporter on the scene at the time that their demonstration was conducted in Denver 100 years ago. *{I am referring to the black out of the electric utility grid in the foothills of Denver outside of town at the periphery of their radius of influence.}*

The transformer iron winding not only receives the magnetic field of the copper tubing, but also it’s wrapping serves as a starter coil giving a consistent direction to the circular motion of the EM field surrounding the tubing.

Normally, we think of resistance in the form of electrical resistance getting in the way of electricity running through a copper wire and so we choose copper over iron to create our electromagnetic field surrounding the coils in our electric motors.

But that does not apply to the Ammann Brothers device, for their device is predicated on magnetism and ignores the electric field outside of their motor (which is the only place wherein electricity is given any chance to flourish by their use of copper windings in their motor).

Yes, there is no resistance to the magnetic flux induced in the iron wire wrapped around the copper tubing. Although helium responds to an electrostatic field, it responds by creating an electromagnetic field of its own and this is what the Ammann brothers are interested in capturing and putting to good use.

This iron wire extends beyond the transformer to the armature, within the electric motor of the vehicle, and does not return to the transformer in order to avoid creating any eddy currents which would have resulted from the formation of a closed loop. These eddy currents would have undermined the flow of magnetic flux traveling towards the motor's armature.

Again, there is no resistance to magnetic flux in that iron wire. We (and they) would only have electrical resistance in that wire had it been electricity which they were sending down the length of that wire, but they were not sending electricity down the length of that wire and, thus, there is no resistance since they were merely sending magnetism!

And if the iron wiring in the drum was floating in, or surrounded by, a dielectric material such as wax or tree resin, then this would've absorbed and stored an electrostatic charge and complete the definition of electricity (storing the dielectric field in this waxy/resinous material while the magnetic field traveled through the iron wire).

Again, the iron wire extends beyond the windings of their transformer and connects to the armature of their motor and, thus, induces a flow of electricity inside the copper winding of their motor.

There is no need for diodes since the direction of the transformer winding will induce a unidirectional orientation to the circular magnetic flow surrounding the copper tubing much like the starter coils in a single phase induction motor will do the same thing: initiate rotation in a direction equivalent to the direction of the winding around the motor's armature.

What we have, here, is reactive power in the form of the helium reciprocating along the entire length of the copper tubing. The transformer converts this alternation of charged plasma into unidirectional circular flow of magnetism surrounding the copper tubing. This magnetic flux is converted into D/C electricity once this magnetic flux arrives at the armature of their D/C motor and energizes their copper coils in that motor effectively satisfying the need for their D/C motor to exclusively receive D/C.

Recall, that it is D/C which powers their motor since the flow of magnetism is unidirectional along the length of their iron windings (provided we continue to adhere to this simplistic description; but the simplicity of this description will not last; continue reading...).

It has come to my attention that D/C is non-reactive power by its intrinsic nature. This awareness results from conducting simulation experiments (using a different circuit; not this one) in which I replace the A/C voltage source with a D/C variety and watch how non-reactive my experiment becomes...

Thus, I may conclude that, only A/C is reactive by its intrinsic nature. And this A/C can take various forms, such as the format of a sine wave, or an alternating square wave, or pulses of duty cycles other than 50%, and triangular waves, sawtooth, etc....anything which dips below the midline of the oscilloscope into the negative polarity in alternation to its upswing of a positive polarity throughout each cycle of alternations.

It is this alternation of voltage polarity (in a voltage source) which accounts for its reactive nature and its ability to become something greater than itself, namely: overunity, if we should take advantage of this potential asset. And it is the gap – in between alternations of voltage polarity – in which can be found the reactive source of overunity.

It is interesting to note that we are already calling the dielectric field a potentiality! It is a potentiality in more ways than one if it is also alternating in its polarization over time. This implies that D/C does not involve time; it merely extends into time without involving time, directly.

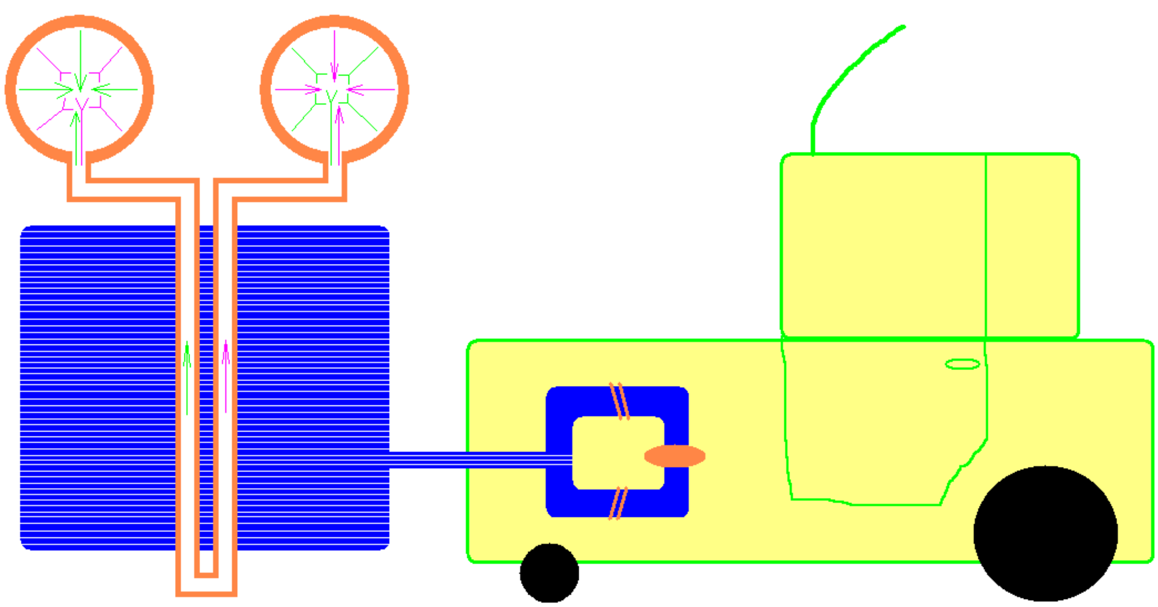
Only an alternation of polarization will effectively involve time and, thus, convert a lame D/C voltage source (emitting real power) into an exciting A/C voltage source emitting reactive power capable of Herculean feats of magic!

Again, to repeat myself ad nauseam... The temporal gap between any two half-phases of an A/C cycle is the source for reactive power. But, this is the intrinsic nature of copper. It is not the intrinsic nature of iron which has the potentiality of blending opposing phases of magnetic flux into a singularity of time. Only copper separates these singularities into a sequence of temporal phases. Iron combines them into one temporal phase, yet, still retain their opposing vectorial character of simultaneity.

The Ammann brothers made use of this reactive gap of time, and highlighted it, by cross-canceling the magnetic flux occurring inside of their iron windings by bending their copper tubing back onto itself and passing both strands of tubing through the center of their iron transformer. This cross-canceled any eddy currents which may have arisen among other special effects.

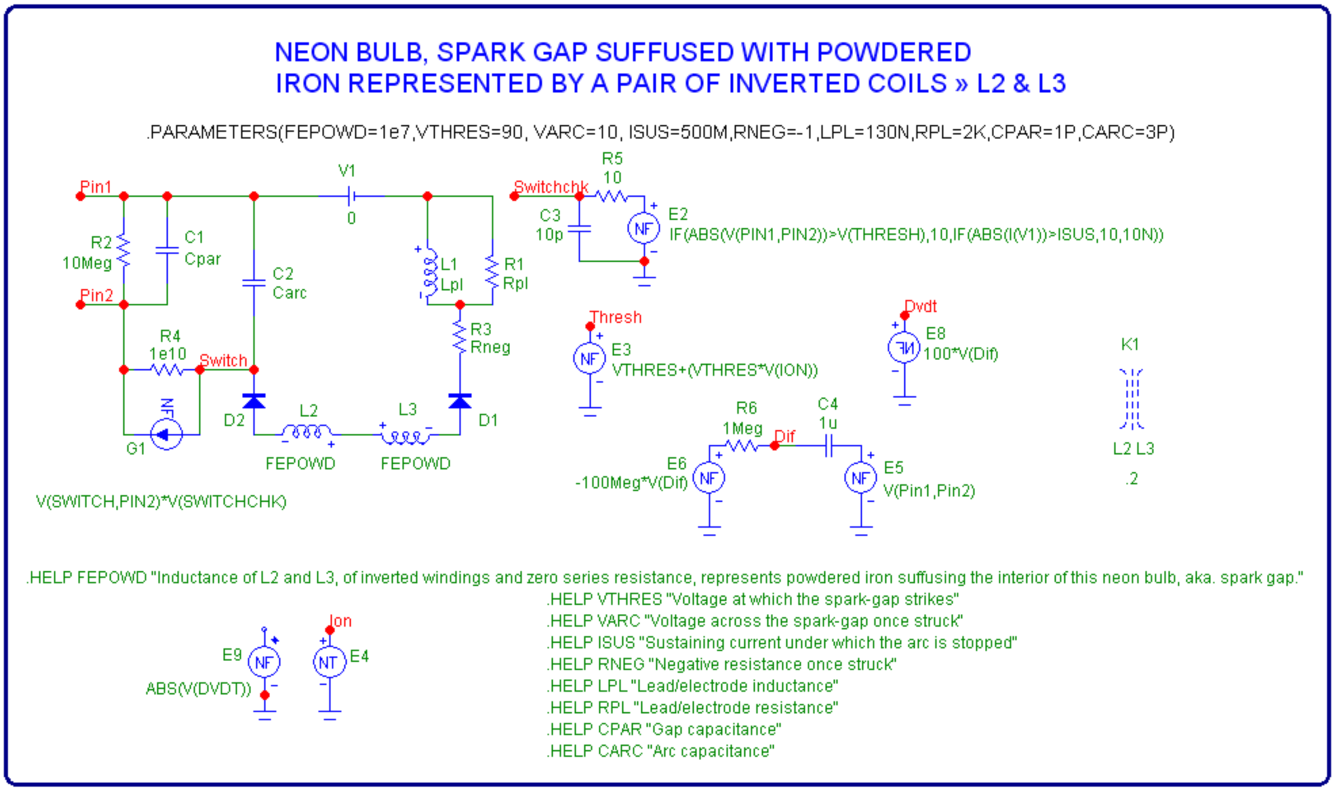
This takes magnetic remanence beyond what we are already familiar with, because you have to ask yourself, “What is traveling down, and through, the iron wire away from, and within, the transformer if it's not magnetic flux?”

Or else, is there something else about magnetic flux that I am, or we are, not familiar with?... That it could simultaneously flow in opposing directions and, yet, still retain its power as a potentiality to be released by the intrinsic nature of copper windings (via phase shift) which will separate these opposing magnetic fluxes into alternating phases of normal A/C current manifesting inside of the copper windings of the electric motor depicted, below?...



There's no substitute for experience, namely: for building the, above, image. Yet, I can't help myself!

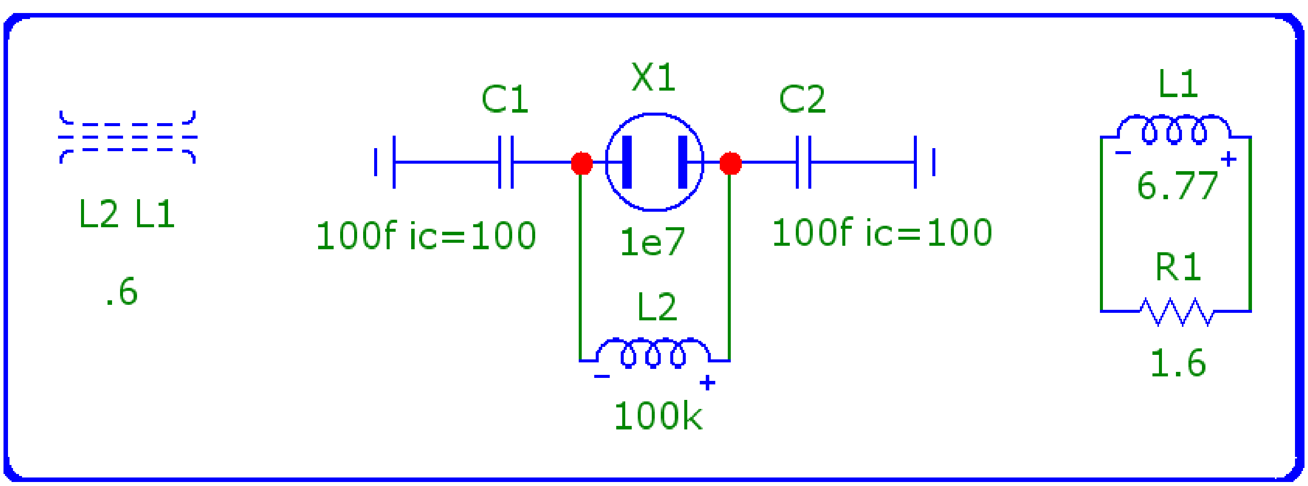
What follows, below, is an attempt to simulate an electrical equivalency of the magnetic circuit depicted, above...

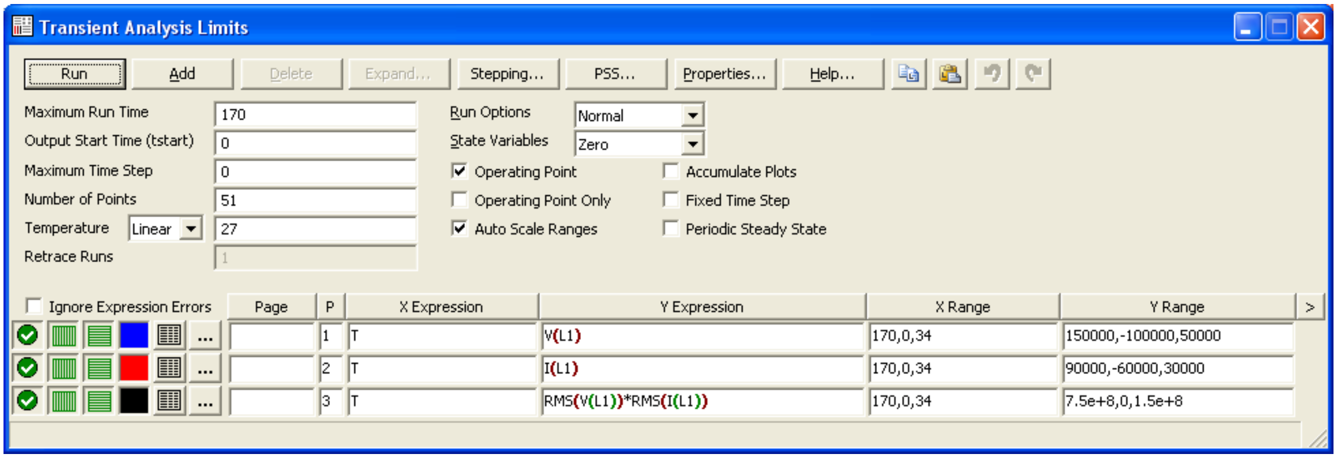


It requires two large inductors inside of Micro-Cap's spark gap macro (L2 and L3 up, above) plus one large, exterior inductor (L2, in the image, below) directly connected to the exterior terminals of this spark gap.

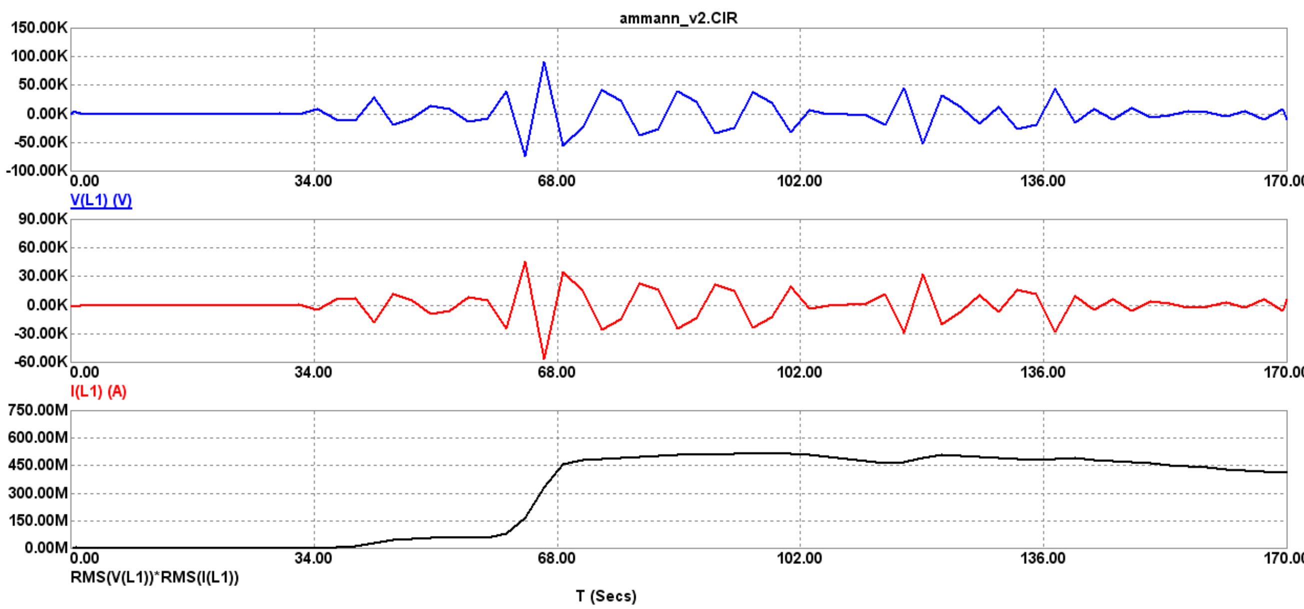
L1, below, is the combined inductances of the main coils of a pair of A/C electric motors of a RAV4 EV from 2002.

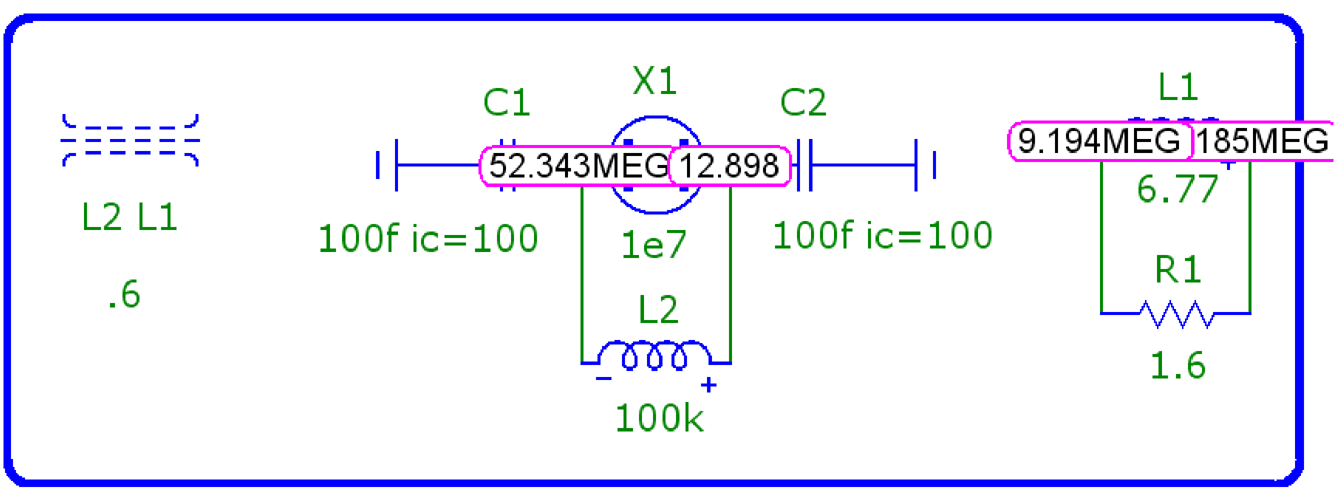
1e7 (immediately beneath the spark gap schematic icon, X1) is ten million Henrys of inductance for each coil situated between the two diodes, up above, of L2 and L3. Each of these two coils has its windings inverted with respect to its neighboring coil to represent the bent copper tubing traveling through the interior of the Ammann brothers' iron windings' transformer (depicted, up above)...



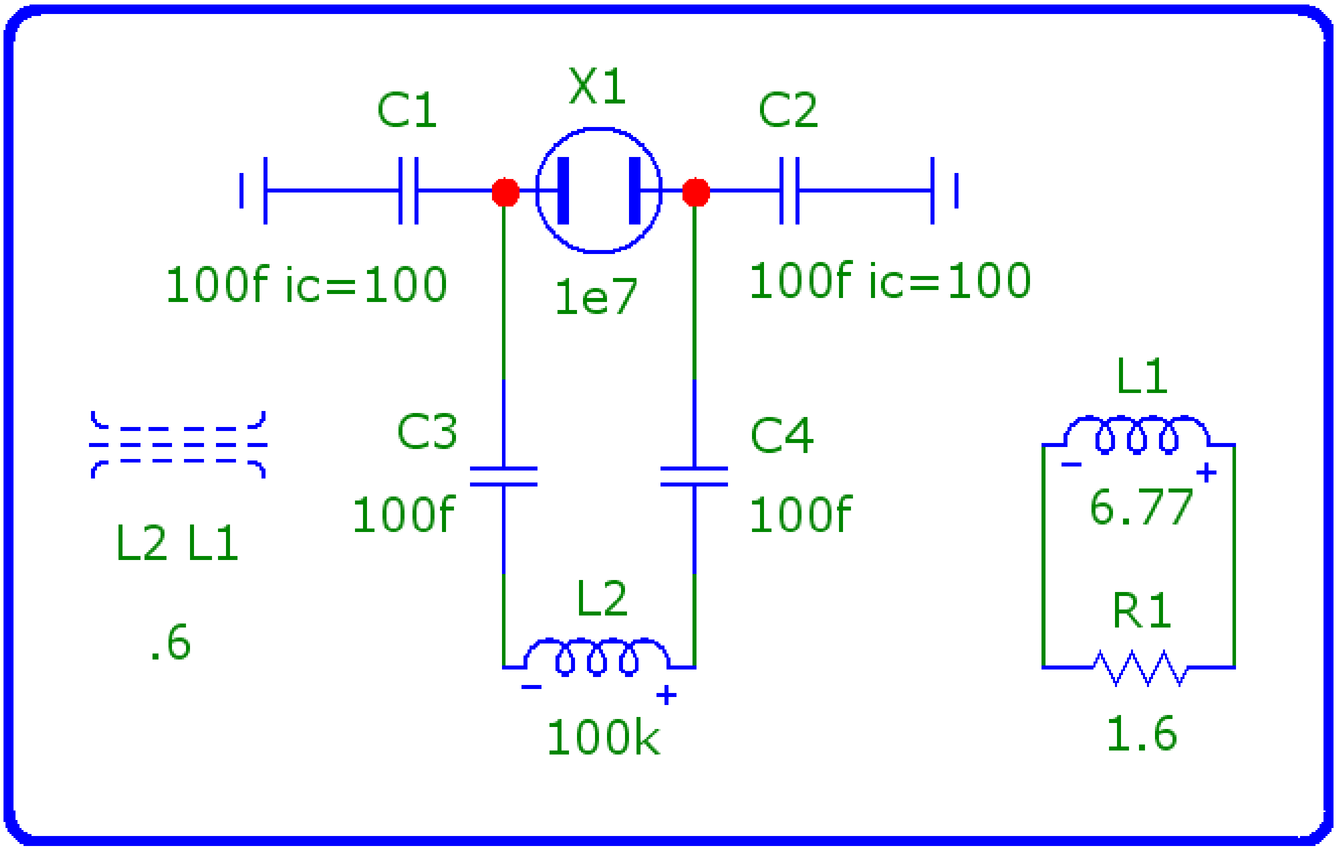


The output keeps escalating without any limitation insuring this simulation is an out-of-control, run-away situation requiring some sort of safeguard be built-in to pulse these surges within safe limits...

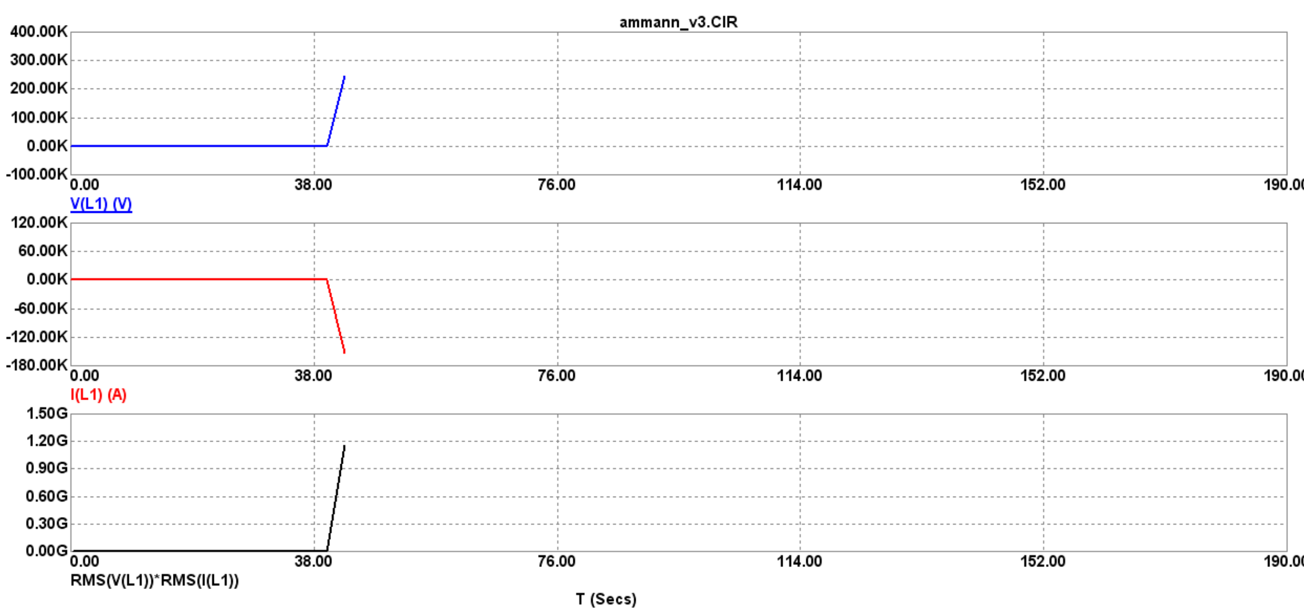




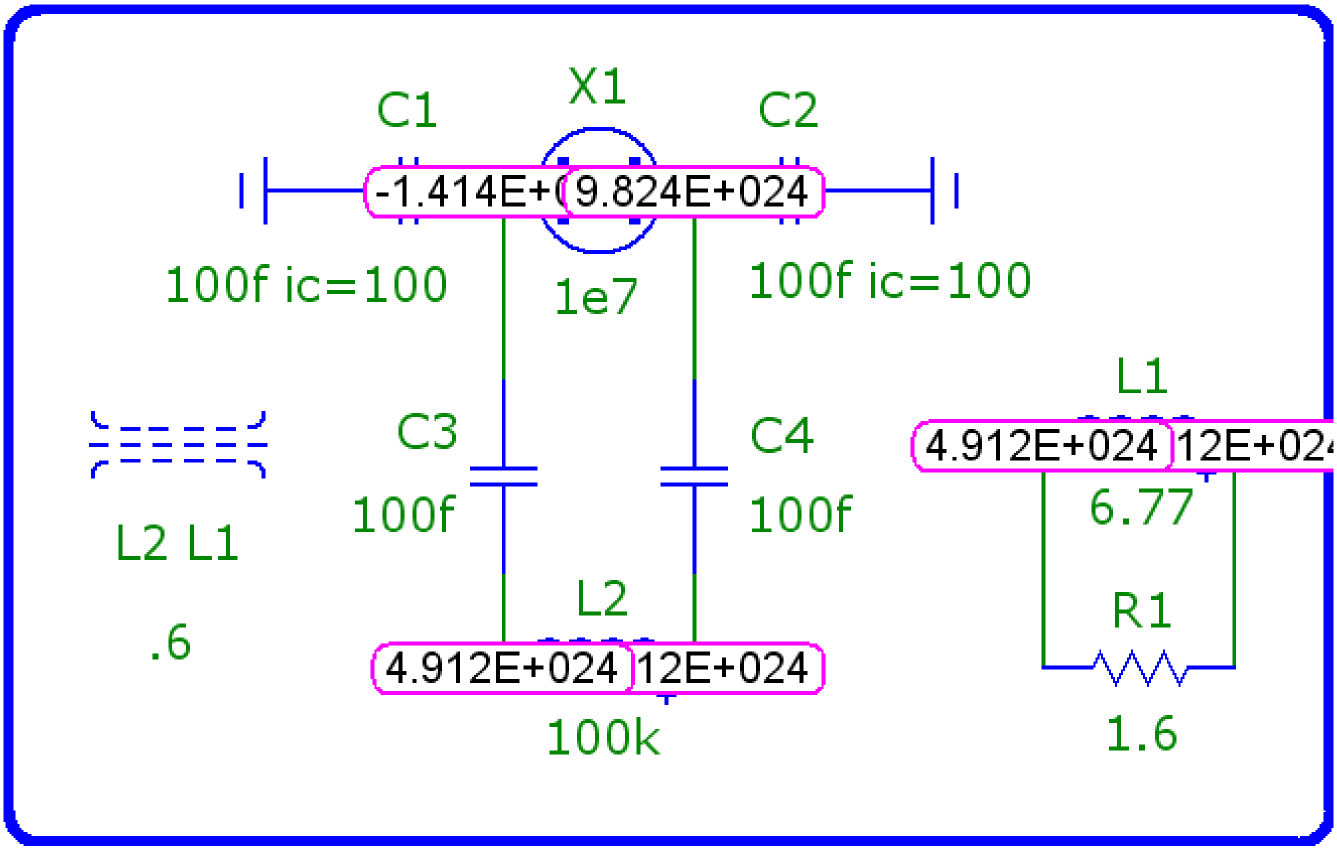
Here is what happens when two additional capacitors, of 100 femto Farads, each, are added...



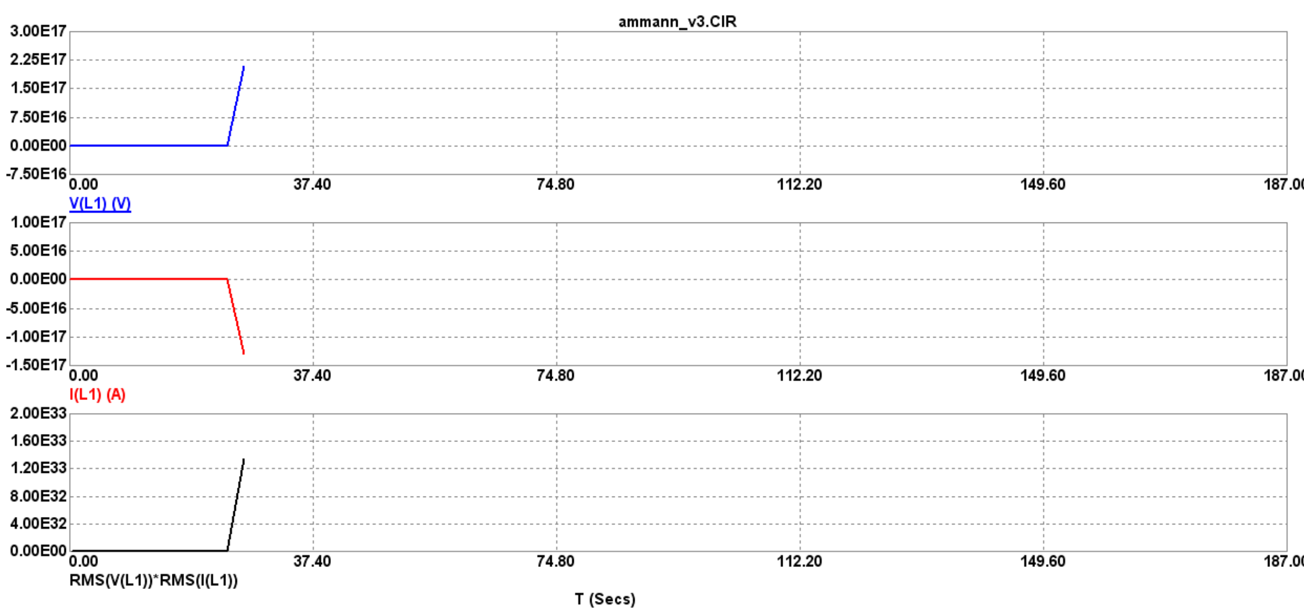
Of various durations of simulations. Here is merely one example of what results from a duration of 190 seconds...

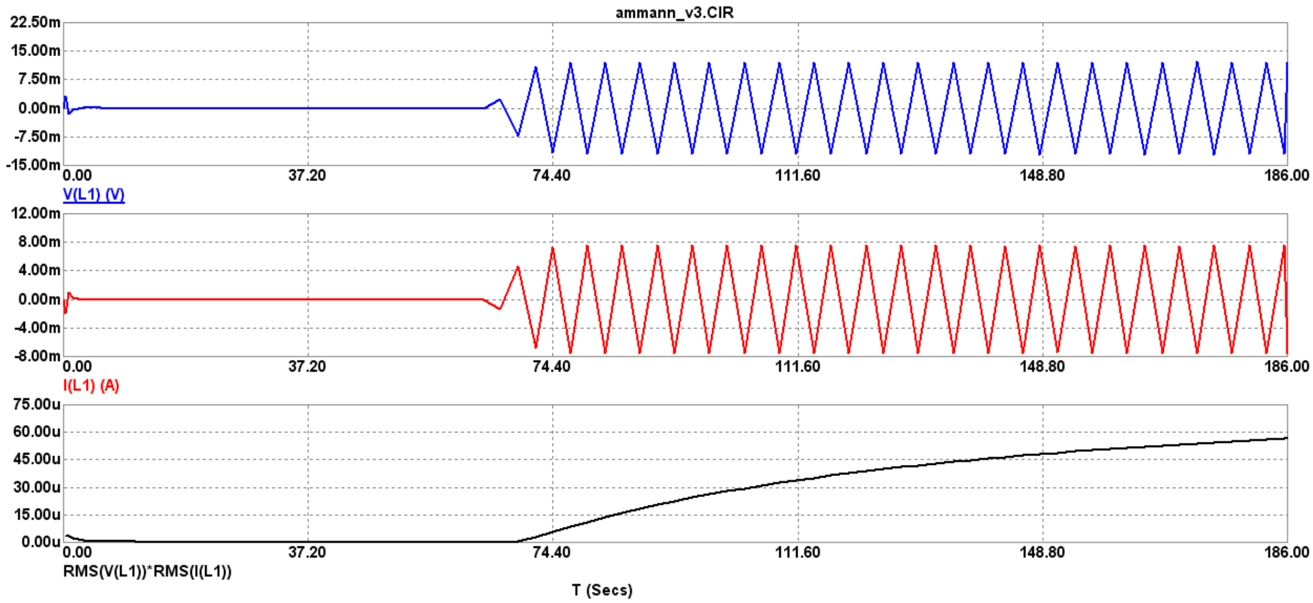


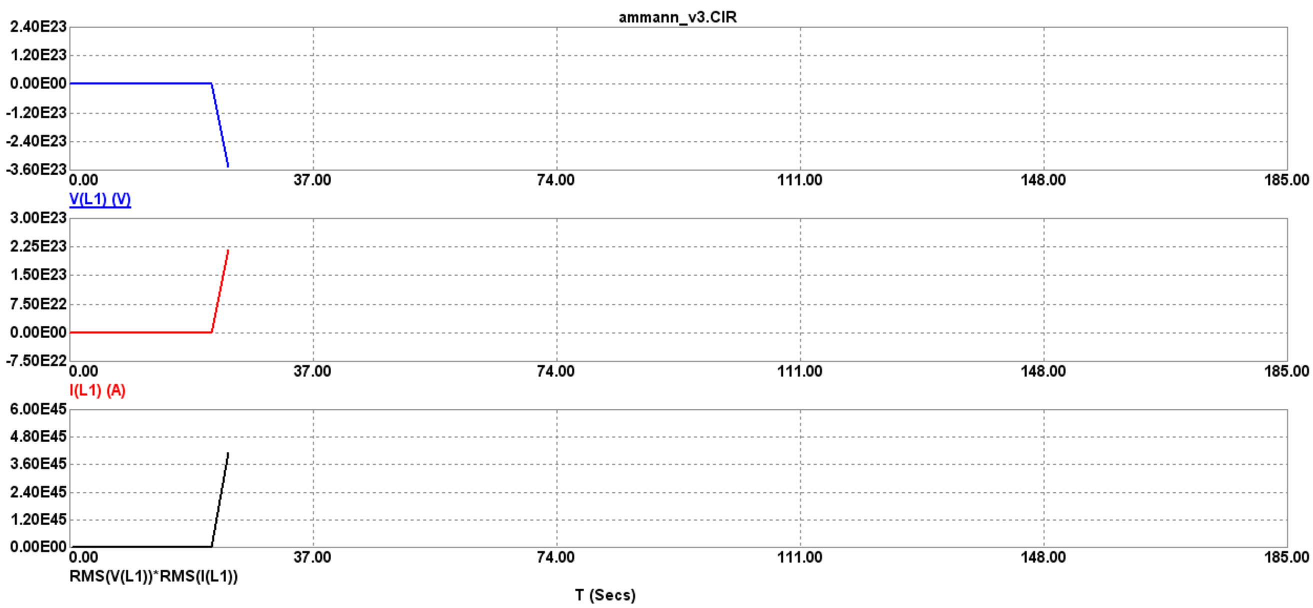
And its nodal voltages...

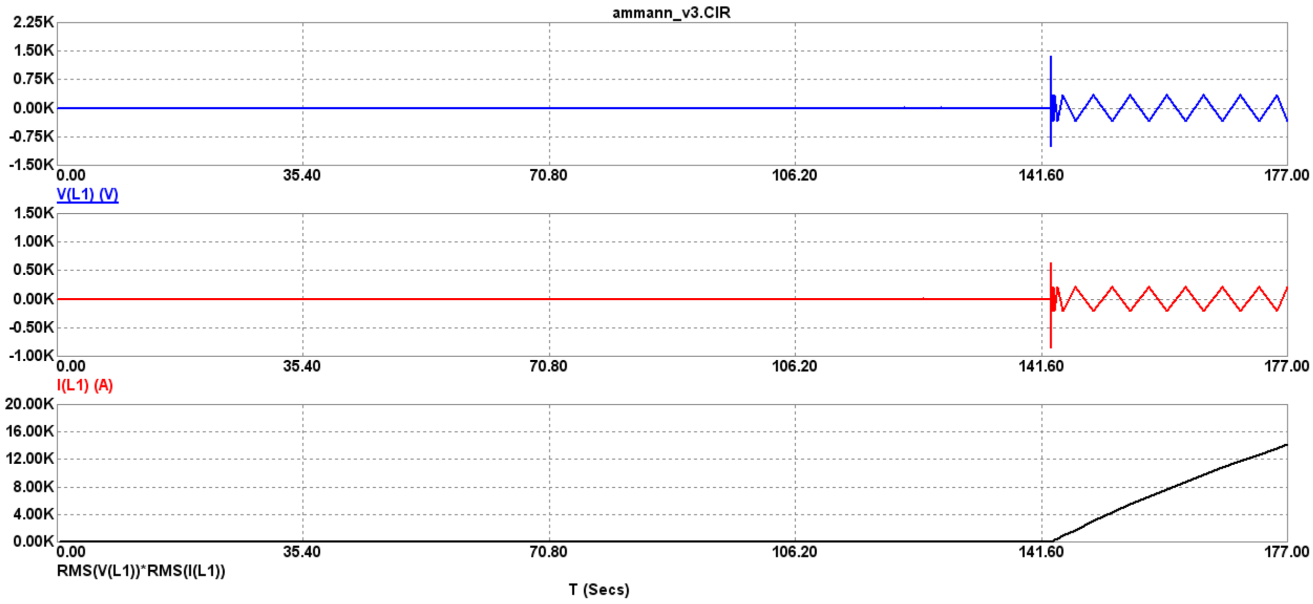


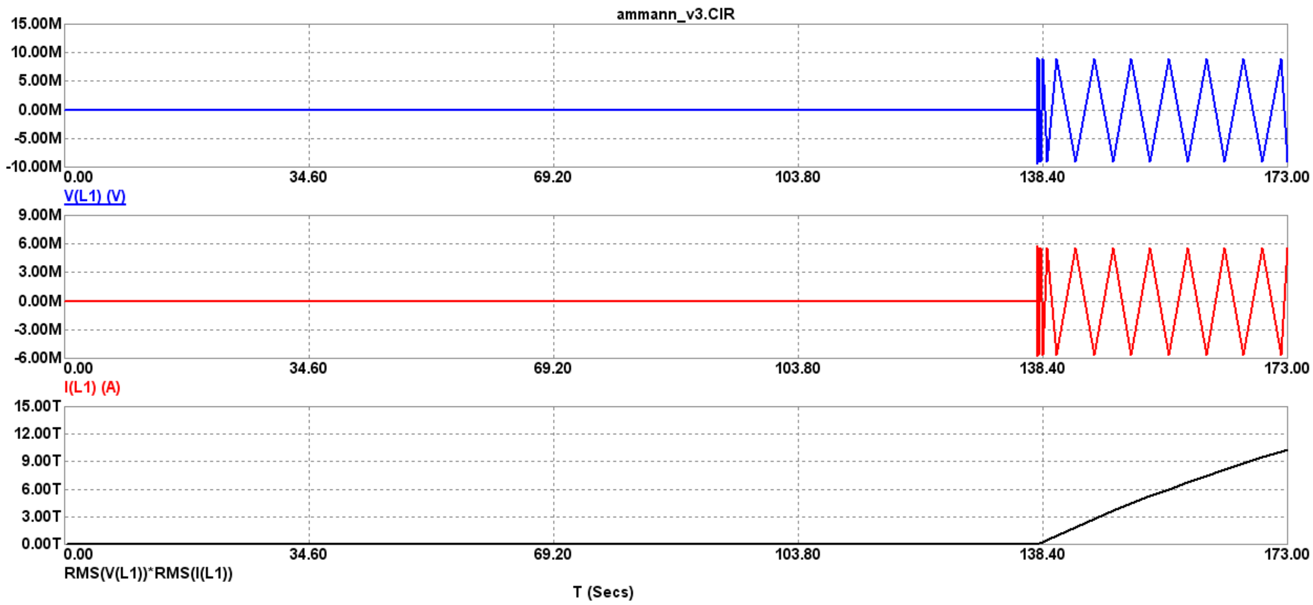
Here are a few other screenshots of ever decreasing durations...




ammann_v3.CIR
V(L1) (V)
I(L1) (A)
RMS(V(L1))*RMS(I(L1))
T (Secs)


ammann_v3.CIR
V(L1) (V)
I(L1) (A)
RMS(V(L1))*RMS(I(L1))
T (Secs)





It's as if the simulator can't make up its mind what is going on! Oh, well....

Note...I've stumbled upon a quirk of Micro-Cap simulator is that it guesses, ahead of making any calculations, what the outcome will be based on any immediately prior simulation along with a quick look-ahead guess-estimation which it performs prior to making its calculations. Thus, it's a good idea to run the simulation several times without changing the circuit and wait until the outcome starts to repeat itself. Then you'll know that the simulator has decided upon that outcome, and no other, is the correct one.

Instant Energy, revisited...

FREE ENERGY, ie. THE OVERUNITY OF THE COEF-FICIENCE OF PERFORMANCE, OBEYS OHM'S LAW!

16. INSTANT ENERGY RELEASE AS INFINITY

Phenomena of enormous magnitude manifest themselves when the criteria for voltage or potential difference is instantly disrupted, as with a short circuit. The effect is analogous with the open circuit of inductive current. Because the forcing voltage is instantly withdrawn the field explodes against the bounding conductors with a velocity that may exceed light. Because the current is directly related to the velocity of field it jumps to infinity in its attempt to produce finite voltage across zero resistance. If considerable energy had resided in the dielectric force field, again let us say several K.W.H. the resulting explosion has almost inconceivable violence and can vaporize a conductor of substantial thickness instantly. Dielectric discharges of great speed and energy represent one of the most unpleasant experiences the electrical engineer encounters in practice.

Pt.2 - Aether - Eric Dollard SFTS Powerpoint, p.49

http://is.gd/aetherdollard

This is the situation with normal conduction of electricity, such as passing through copper wire, but is not the case with magnetic flux passing through iron.

Edward Leedskalnin, in his book: “Magnetic Currents,” has stated that magnetic flux is the flow of little monopolar magnets of north monopoles and south monopoles traveling in opposing directions.

So, all we have to do is transpose this to electric current during each half-phase of any alternating cycle of voltage inversion to realize the infinite release of energy which Eric speaks of, up above.

In other words, transposing magnetic currents to copper wire from having traveled as little monopolar fluxes of magnetism within iron, switches this flow of magnetic current from its prior status as a simultaneity of opposing fluxial-flows into a different status of alternation of opposing fluxial-flows. From this transposition emerges the release of infinite current from a finite potential across a zero impedance.

Iron has no impedance. Copper does possess impedance; that's why electricity has to alternate if it is to somewhat integrate the two opposing directional fluxes of magnetism into a semblance of unity.

But, this sudden conversion from a bidirectional flow into an alternating flow is a sudden release with no apparent impedance in the prior state of flowing through iron into a sudden state of having to become forced to flow through copper as an alternating state.

So, one of the fluxes takes on the appearance of voltage in which no flow occurs at all. In other words, it becomes static electricity. While the other monopolar magnetic flow takes on the appearance of current which may only flow in one direction at a time.

This is how the two opposing magnetic monopoles apportion their respective specialties in order to fulfill their specific duties while *conserving* their original identities while traveling throughout changing mediums of substance, ie. iron to copper, etc.

The infinite release of energy, which Eric speaks of, has already occurred whenever magnetic flux travels through iron. So, no new energy will become released.

But when this magnetic flux converts over into alternating current whenever it transposes itself into the medium of copper (from having been traveling through iron), there is no *loss of energy* since there was no resistance to magnetic remanence in the medium of iron prior to traveling through copper. Any loss of momentum will progressively occur while traveling through the medium of copper (or any other substance) while traveling as the alternating phases of electricity.

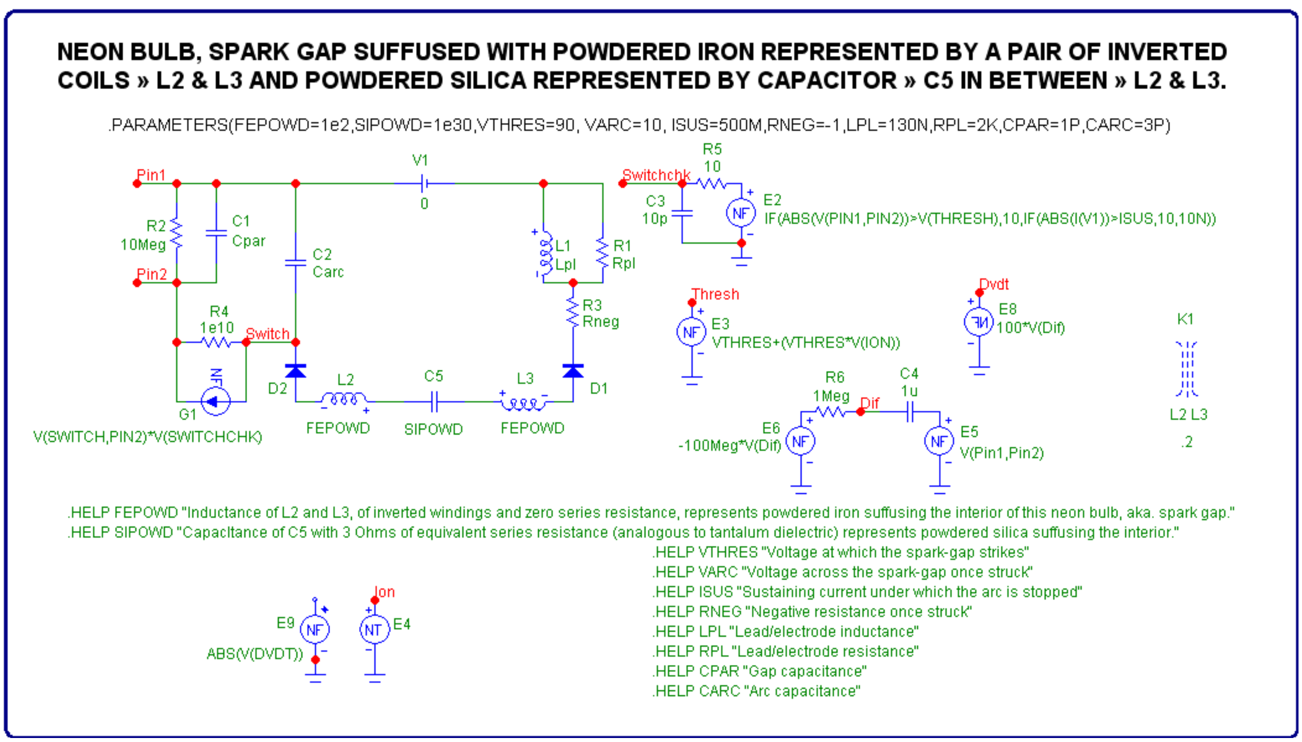
This makes iron a perfect medium for the transmission of energy.

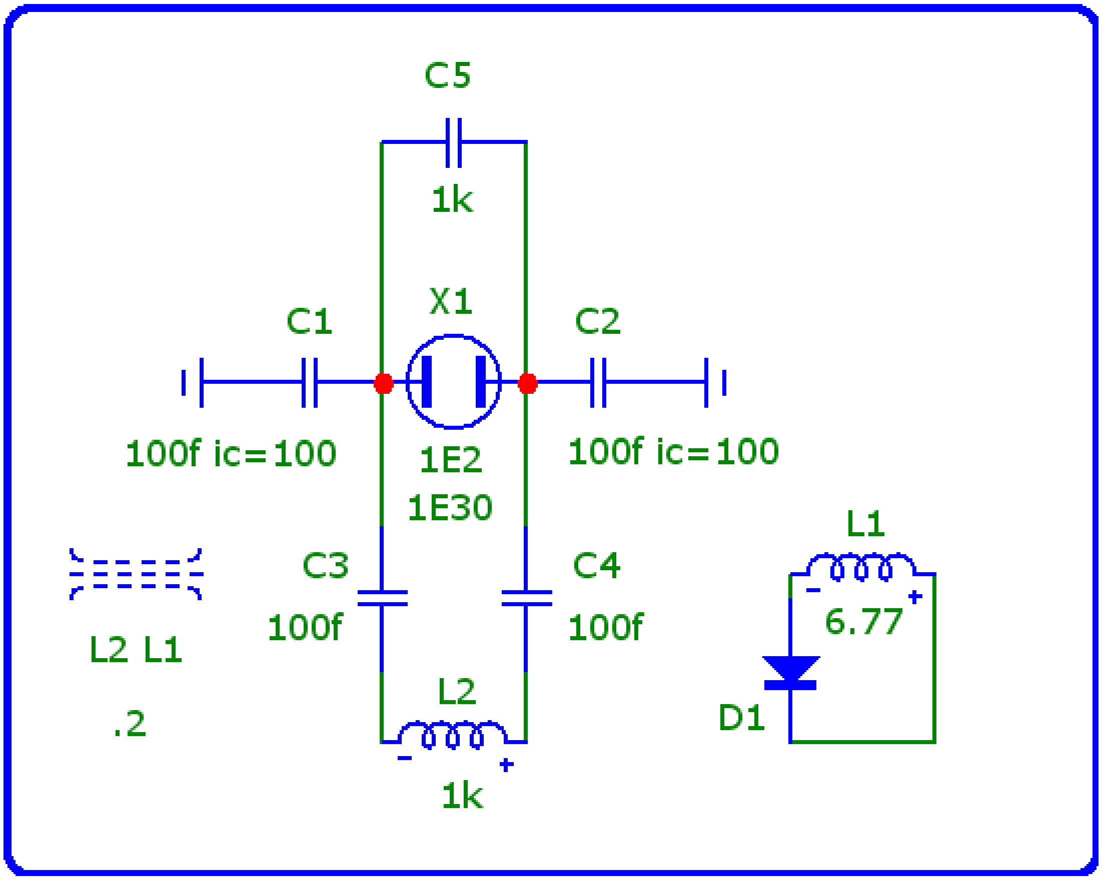
And this makes magnetism the perfect format for energy transference.

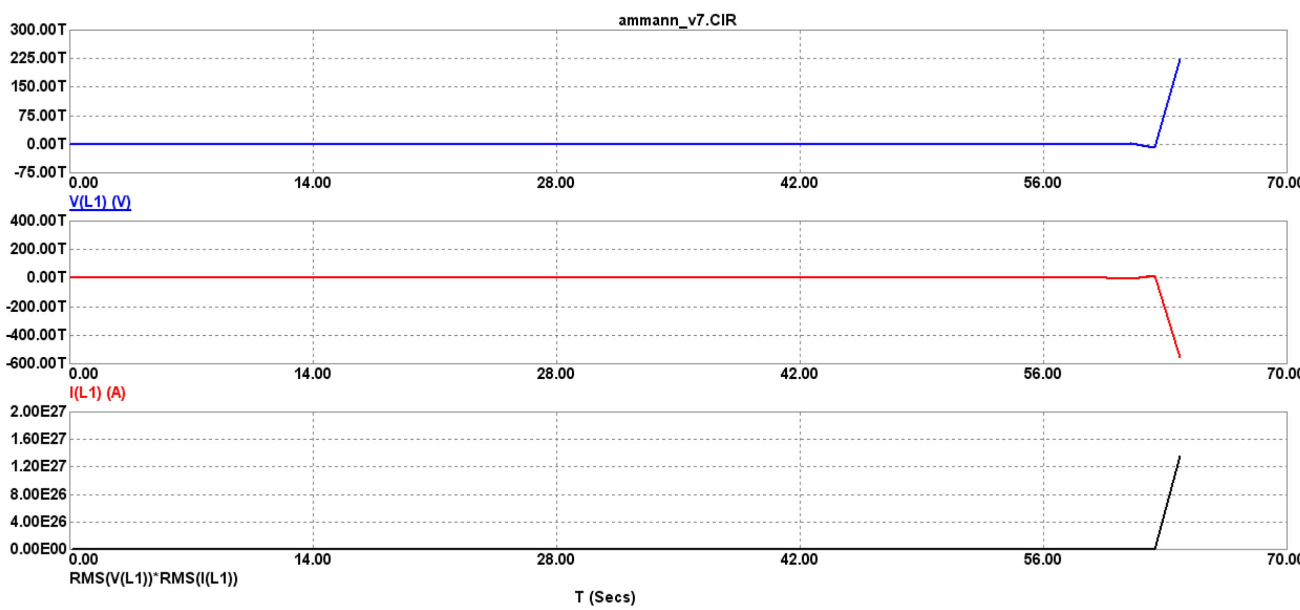
Good to know...

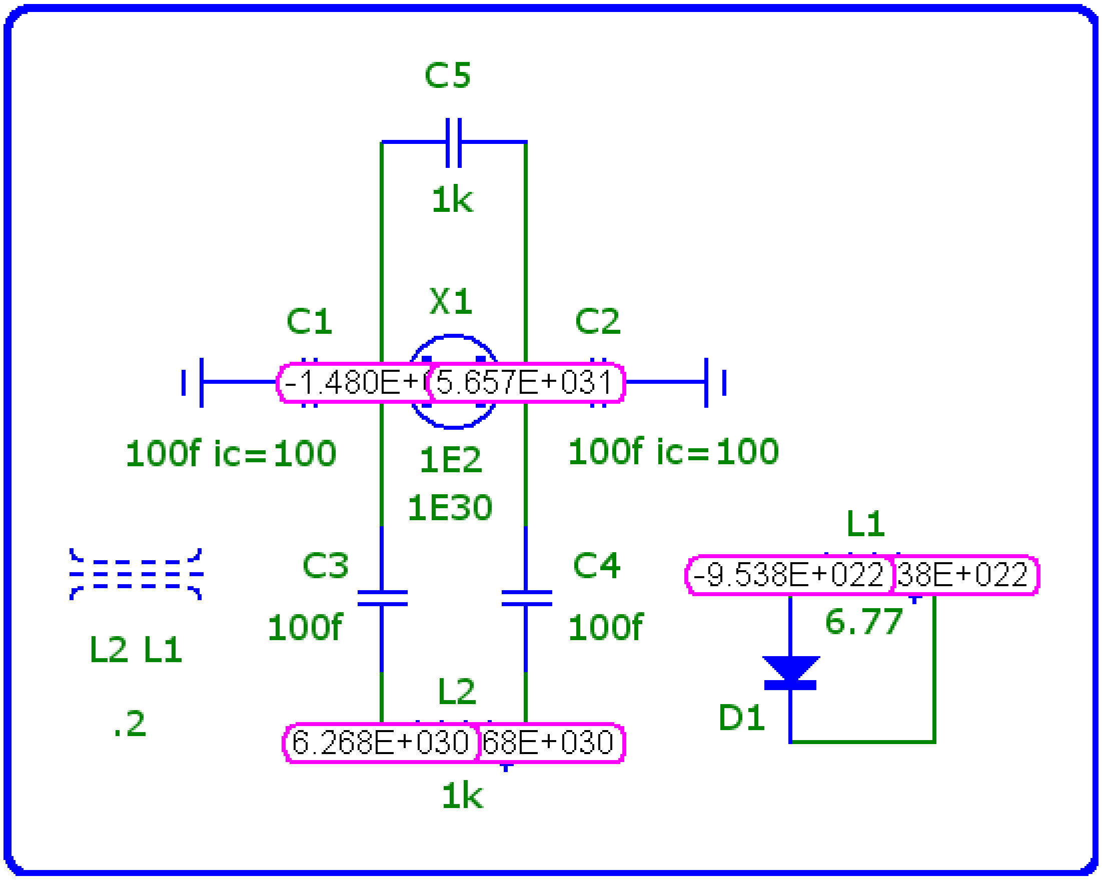
Additional Enhancements...

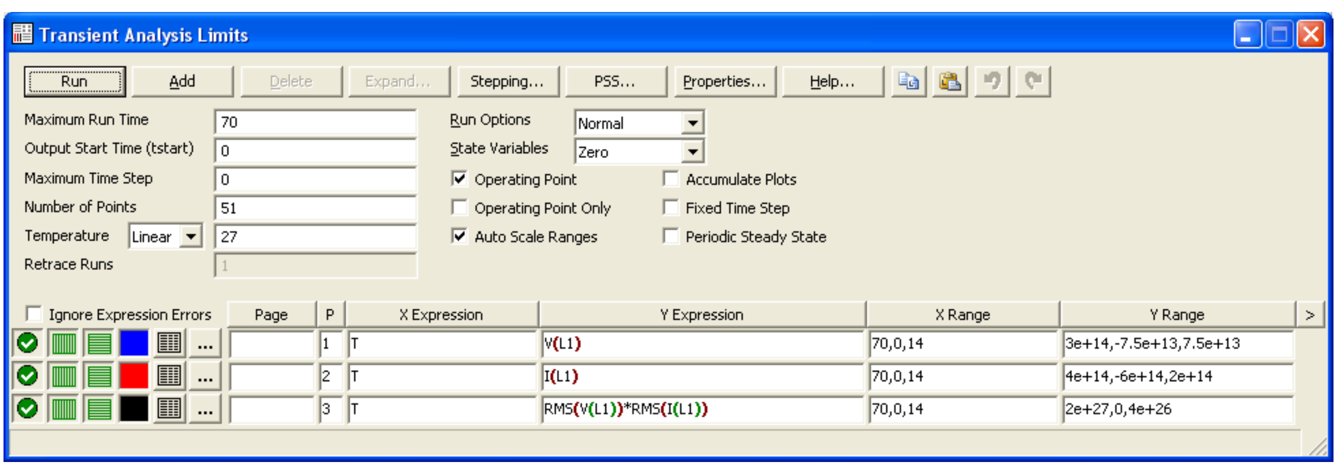
...the addition of powdered silica into the interior of the neon bulb, spark gap (capacitor, C5)...




C5
1k
X1
C1
C2
100f ic=100
1E2
1E30
100f ic=100
L1
C3
C4
100f
100f
6.77
L2 L1
.2
L2
D1
1k

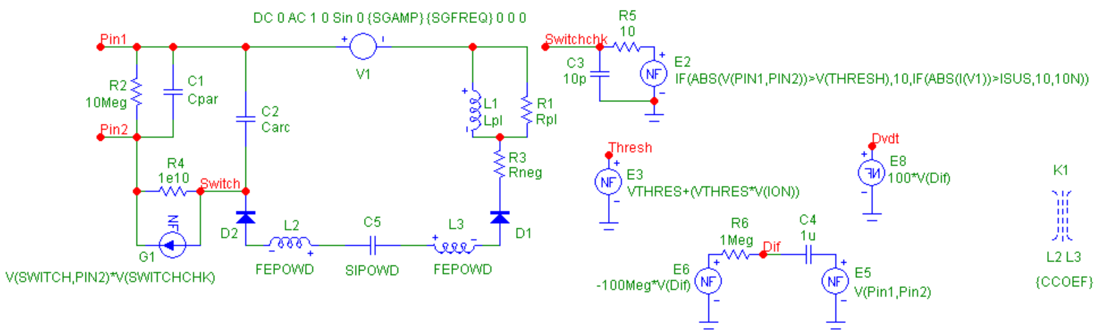

ammann_v7.CIR
300.00T
225.00T
150.00T
75.00T
0.00T
-75.00T
0.00
14.00
28.00
42.00
56.00
70.00
V(L1) (V)
400.00T
200.00T
0.00T
-200.00T
-400.00T
-600.00T
0.00
14.00
28.00
42.00
56.00
70.00
I(L1) (A)
2.00E27
1.60E27
1.20E27
8.00E26
4.00E26
0.00E00
0.00
14.00
28.00
42.00
56.00
70.00
RMS(V(L1))*RMS(I(L1))
T (Secs)


C5
1k
X1
C1
C2
-1.480E+(
5.657E+031
100f ic=100
1E2
1E30
100f ic=100
L1
C3
C4
-9.538E+022
38E+022
100f
100f
6.77
L2 L1
.2
L2
D1
6.268E+030
68E+030
1k

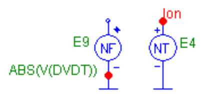

Transient Analysis Limits
Run
Add
Delete
Expand...
Stepping...
PSS...
Properties...
Help...
Maximum Run Time 70
Output Start Time (tstart) 0
Maximum Time Step 0
Number of Points 51
Temperature Linear 27
Retrace Runs 1
Run Options Normal
State Variables Zero
Operating Point
Operating Point Only
Auto Scale Ranges
Accumulate Plots
Fixed Time Step
Periodic Steady State
Ignore Expression Errors
Page
P
X Expression
Y Expression
X Range
Y Range
1 T V(L1) 70,0,14 3e+14,-7.5e+13,7.5e+13
2 T I(L1) 70,0,14 4e+14,-6e+14,2e+14
3 T RMS(V(L1))*RMS(I(L1)) 70,0,14 2e+27,0,4e+26

FREQUENCY & AMPLITUDE MODULATED, NEON BULB, SPARK GAP FILLED WITH POWDERED IRON REPRESENTS A PAIR OF INVERTED COILS » L2 & L3 AND POWDERED SILICA REPRESENTED BY CAPACITOR » C5.

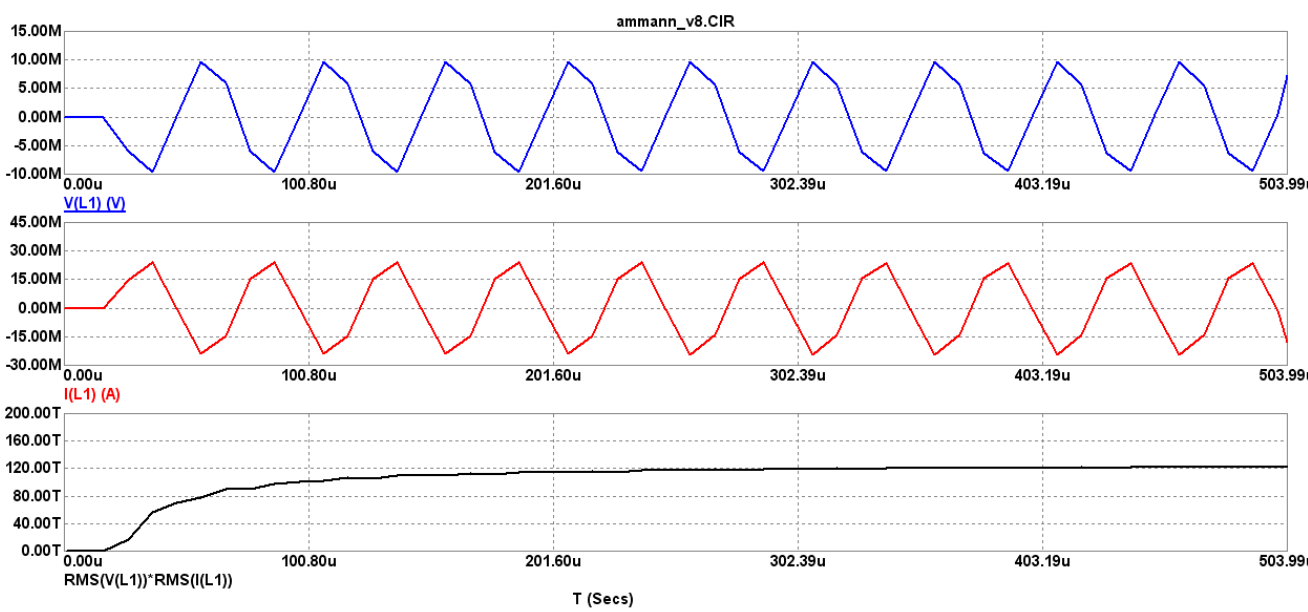
.PARAMETERS(FEPOWD=1e2,CCOEF=.2,SIPOWD=1e30,SGFREQ=10,SGAMP=1U,VTHRES=90, VARC=10, ISUS=500M,RNEG=-1,LPL=130N,RPL=2K,CPAR=1P,CARC=3P)

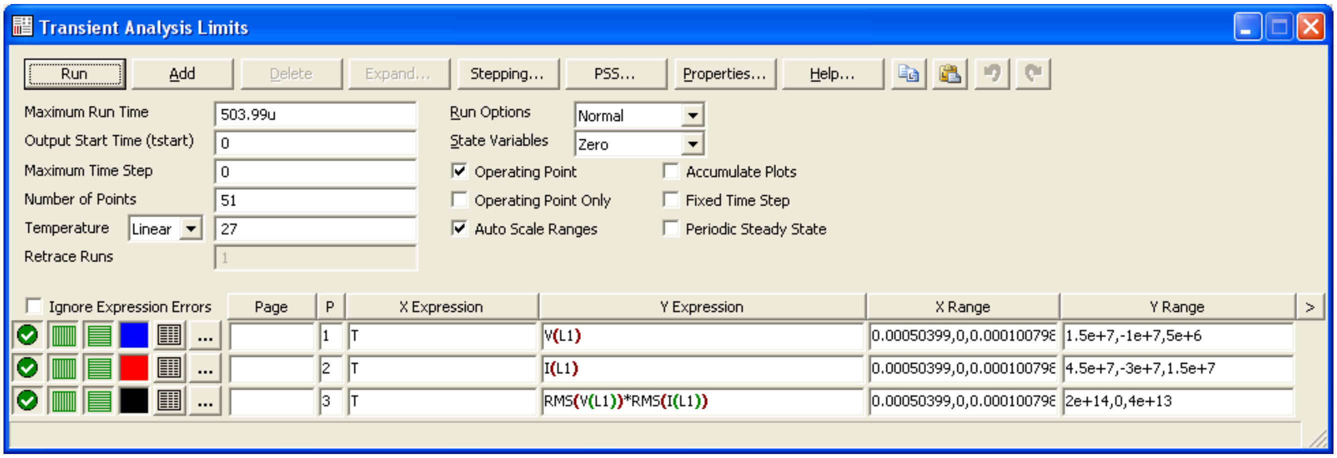


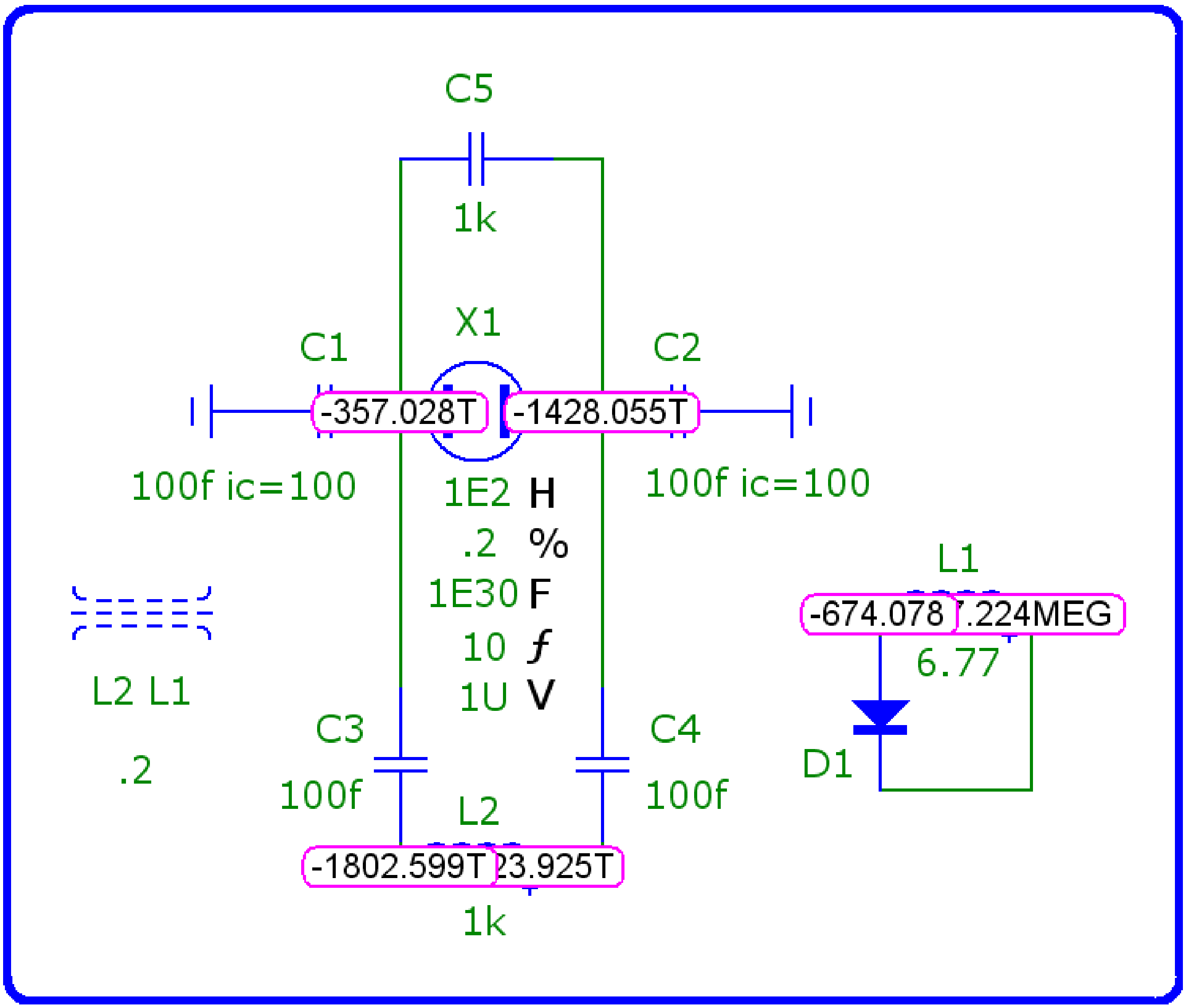
.HELP FEPOWD "Inductance of L2 and L3, of inverted windings and zero series resistance, represents powdered iron suffusing the interior of this neon bulb, aka. spark gap."
.HELP CCOEF "Coupling coefficience between inductors, L2 and L3"
.HELP SIPOWD "Capacltance of C5 with 3 Ohms of equivalent series resistance (analogous to tantalum dielectric) represents powdered silica suffusing the interior."
.HELP SGFREQ "Frequency of sine wave input into spark gap, neon bulb"
.HELP SGAMP "Amplitude of sine wave input into spark gap, neon bulb"

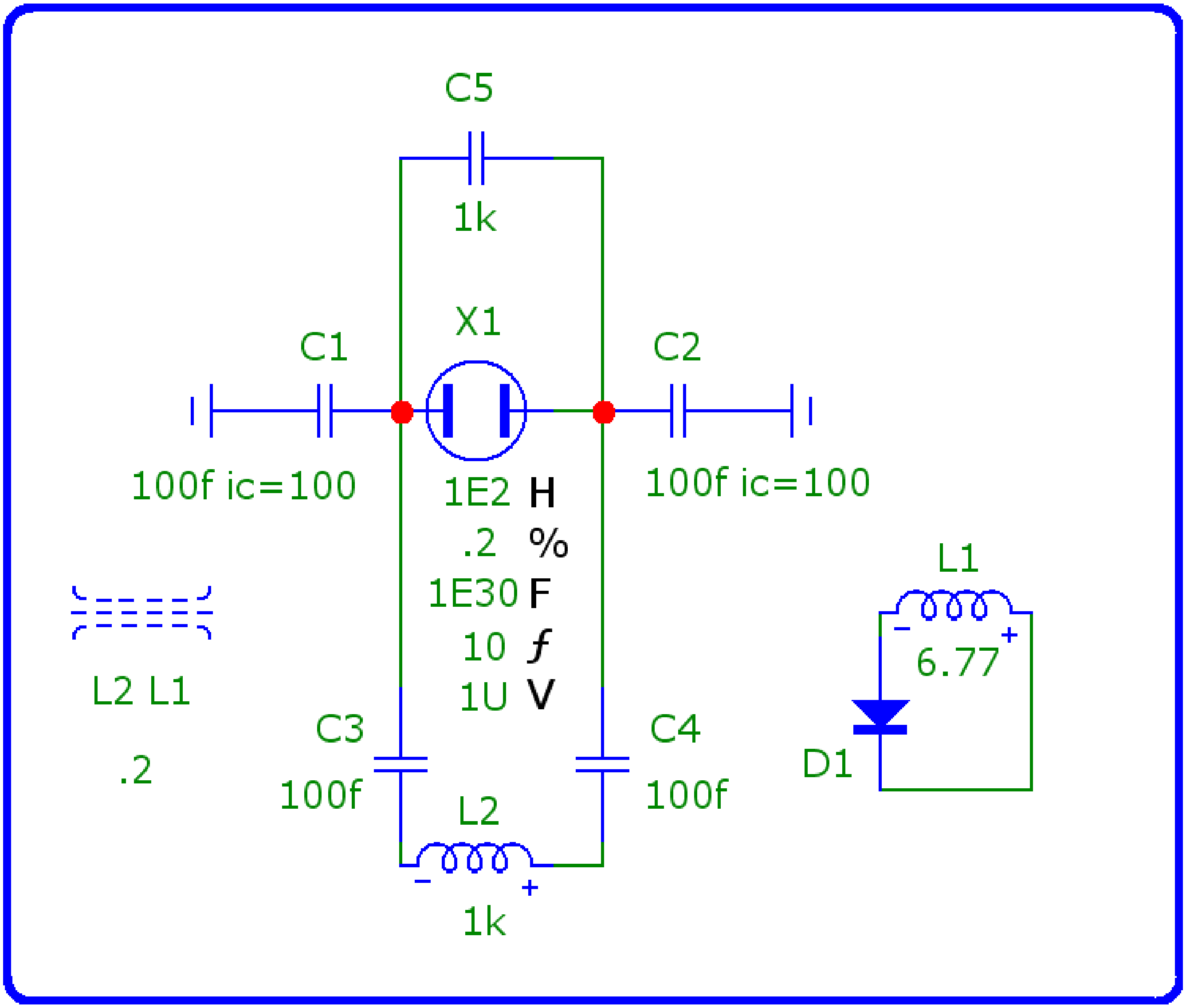


.HELP VTHRES "Voltage at which the spark-gap strikes"
.HELP VARC "Voltage across the spark-gap once struck"
.HELP ISUS "Sustaining current under which the arc is stopped"
.HELP RNEG "Negative resistance once struck"
.HELP LPL "Lead/electrode inductance"
.HELP RPL "Lead/electrode resistance"
.HELP CPAR "Gap capacitance"
.HELP CARC "Arc capacitance"




Transient Analysis Limits
Run
Add
Delete
Expand...
Stepping...
PSS...
Properties...
Help...
Maximum Run Time
503.99u
Output Start Time (tstart)
0
Maximum Time Step
0
Number of Points
51
Temperature
Linear
27
Retrace Runs
1
Run Options
Normal
State Variables
Zero
Operating Point
Operating Point Only
Auto Scale Ranges
Accumulate Plots
Fixed Time Step
Periodic Steady State
Ignore Expression Errors
Page
P
X Expression
Y Expression
X Range
Y Range
1 T V(L1) 0.00050399,0,0.00010079E 1.5e+7,-1e+7,5e+6
2 T I(L1) 0.00050399,0,0.00010079E 4.5e+7,-3e+7,1.5e+7
3 T RMS(V(L1))*RMS(I(L1)) 0.00050399,0,0.00010079E 2e+14,0,4e+13


C5
1k
X1
C1
C2
-357.028T
-1428.055T
100f ic=100
100f ic=100
1E2 H
.2 %
1E30 F
10 ƒ
1U V
L1
-674.078
.224MEG
6.77
L2 L1
.2
C3
C4
100f
100f
D1
L2
-1802.599T
23.925T
1k



1e2H is the inductance of the powdered iron suffusing the interior of this neon bulb, spark gap.

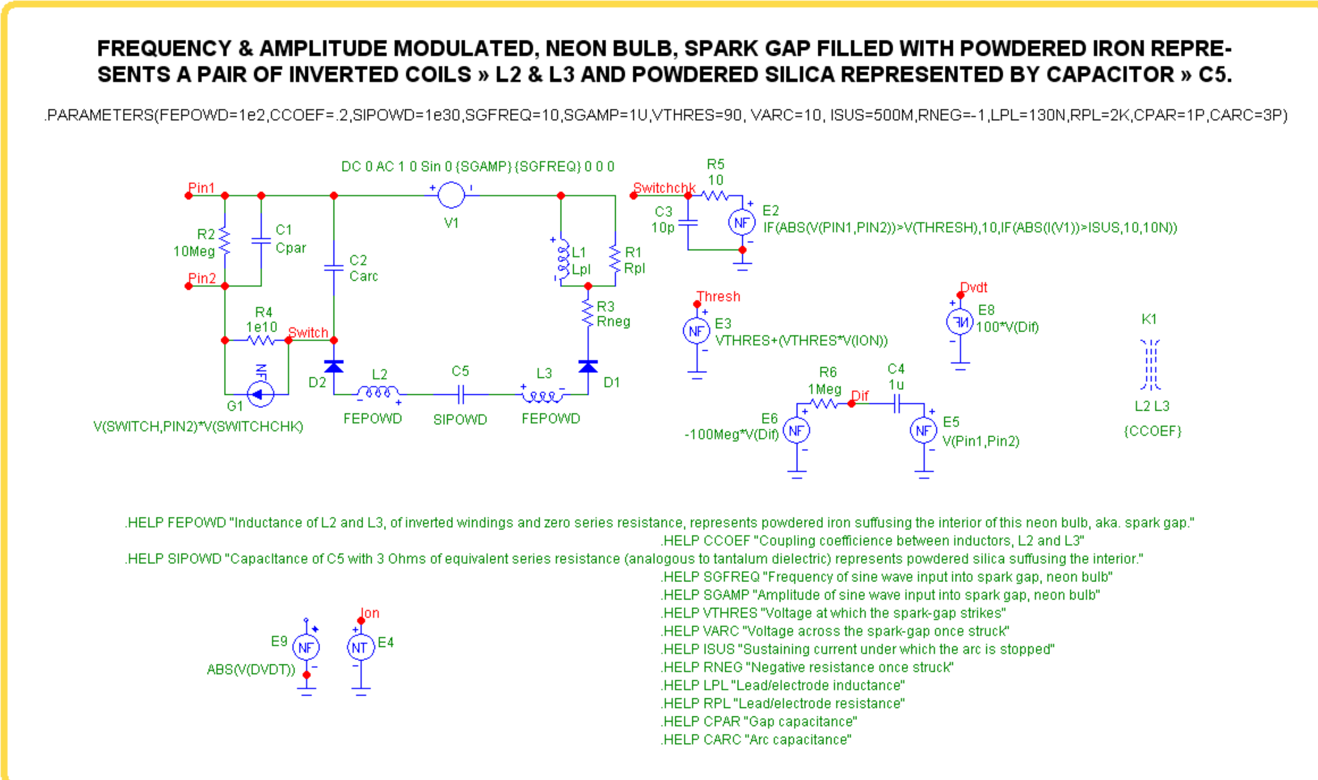
.2% is the mutual coupling coefficience of 20% between the dual inductors inside of the neon bulb which represent the powdered iron and the reversed windings of the transformer coil wrapped around the copper tubing situated, as it is, between the two copper spheres and interconnecting those two spheres..

1e30F is the capacitance of the powdered silica suffusing the interior of this neon bulb, spark gap.

10ƒ is the sine wave input frequency (of 10Hz) which enters into the neon bulb, spark gap.

1µV is the amplitude of the sine wave entering into the neon bulb, spark gap.

This triune sandwich, of capacitor-sparkGap-capacitor, can be combined into a single component as depicted in the image, up above and here, below (again for ease of reference)...

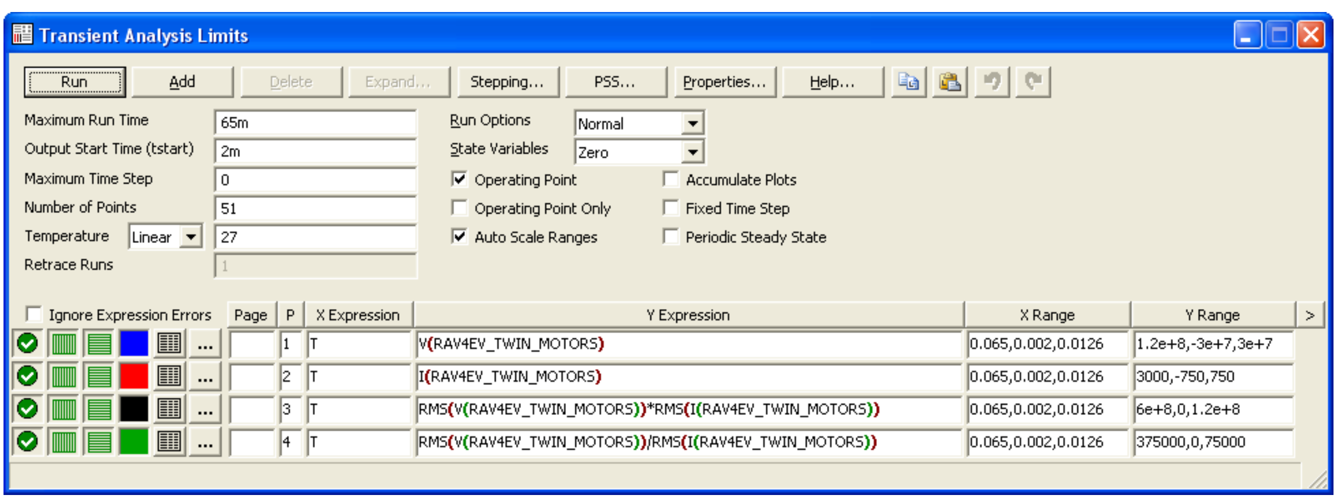


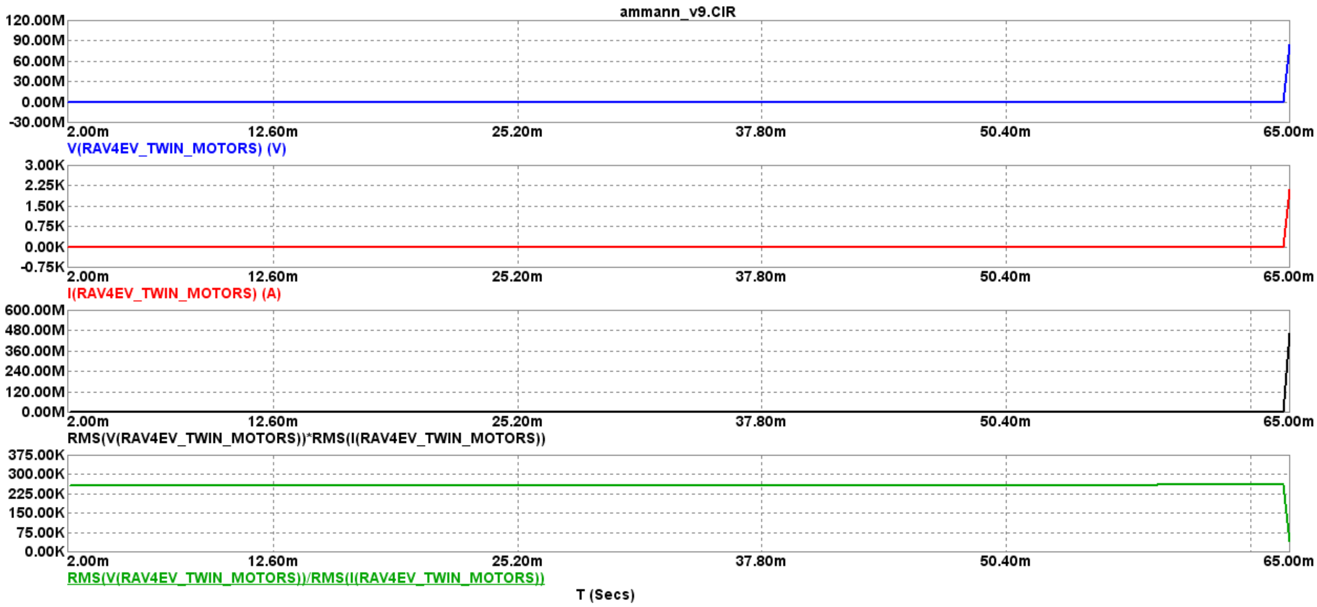
So, it is no longer necessary to use three components when one will do just as well!

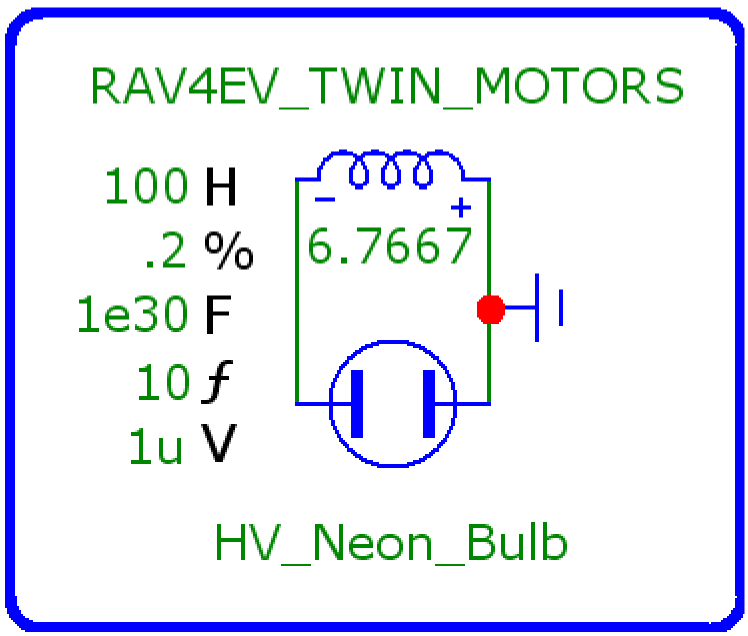
The powdered silica suffusing the interior, of this newly developed spark gap, serves as an analog for the two capacitors flanking either side of the triune sandwich.

And the powdered iron (also suffusing the spark gap's interior) serves as an internalized inductance (as represented by Micro-Cap's macro of two inductors, L2 and L3, in the image, up above).

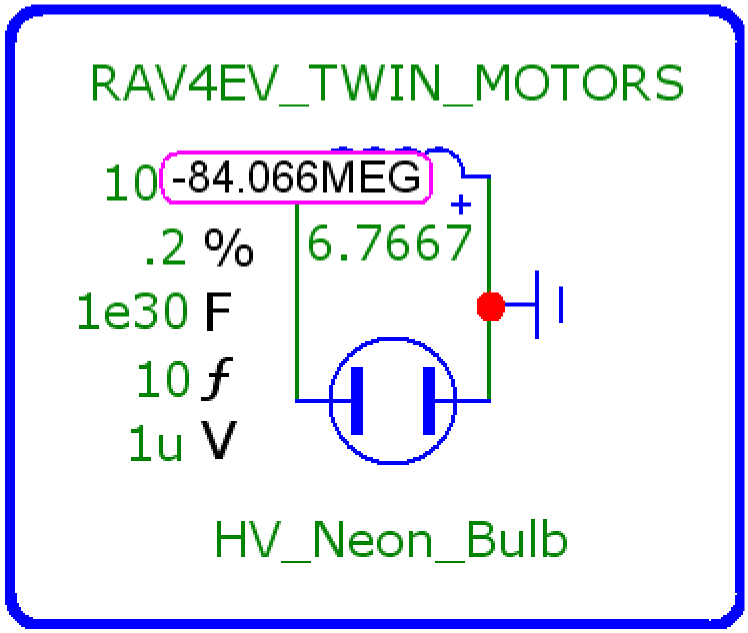
The only challenge is in regulating the explosive outcome!...



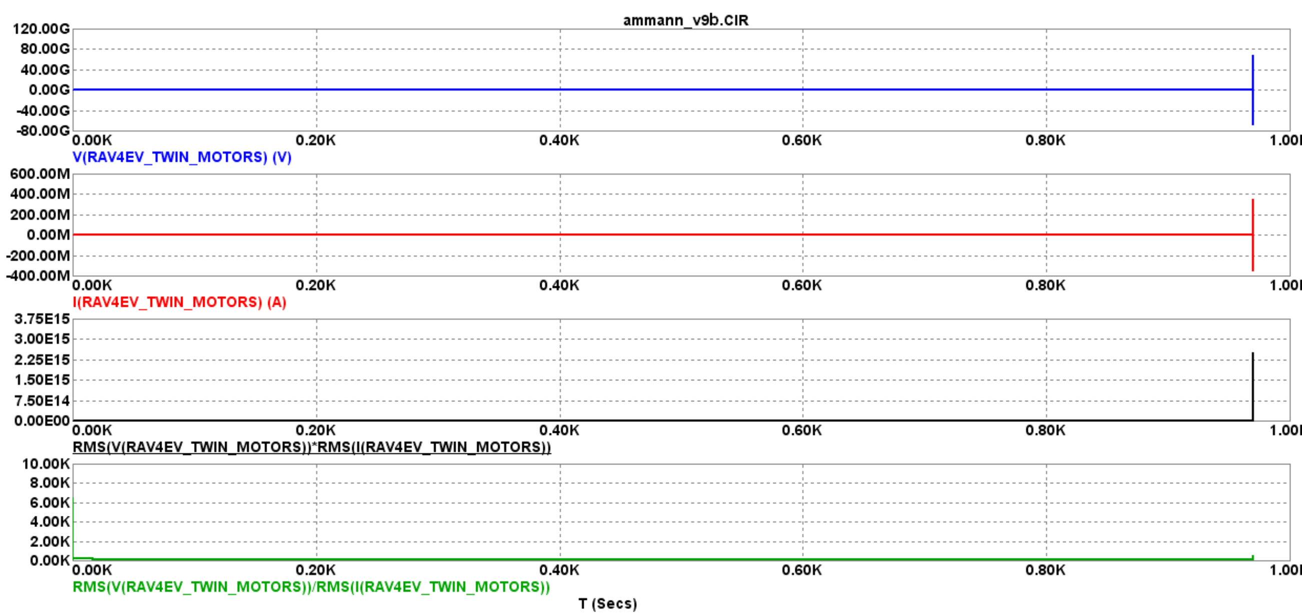


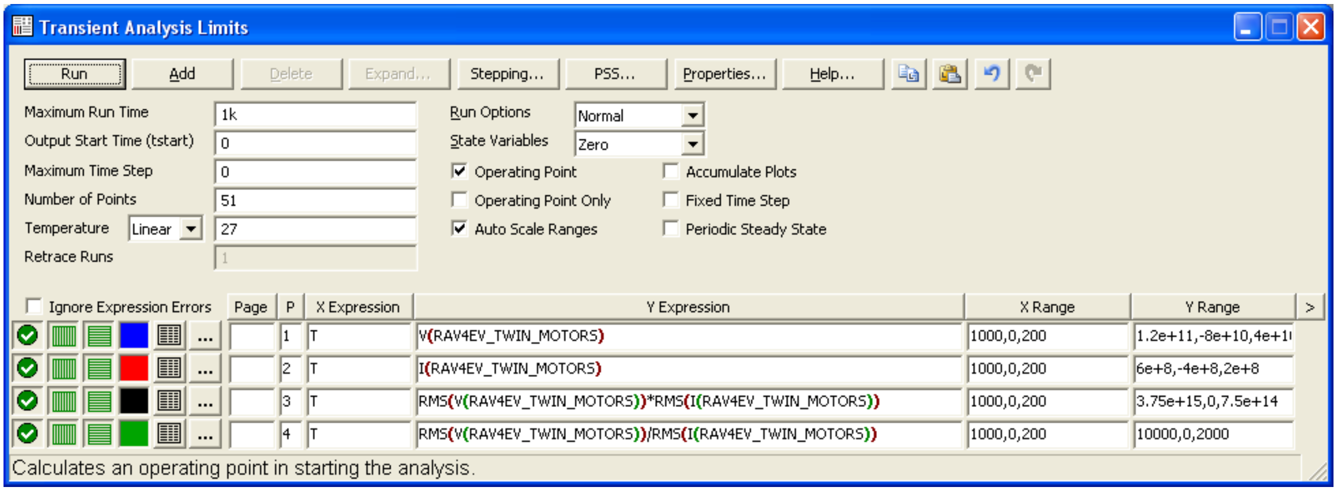


{The load coil's output is labeled: "RAV4EV_TWIN_MOTORS" in the images which are immediately above and below...}

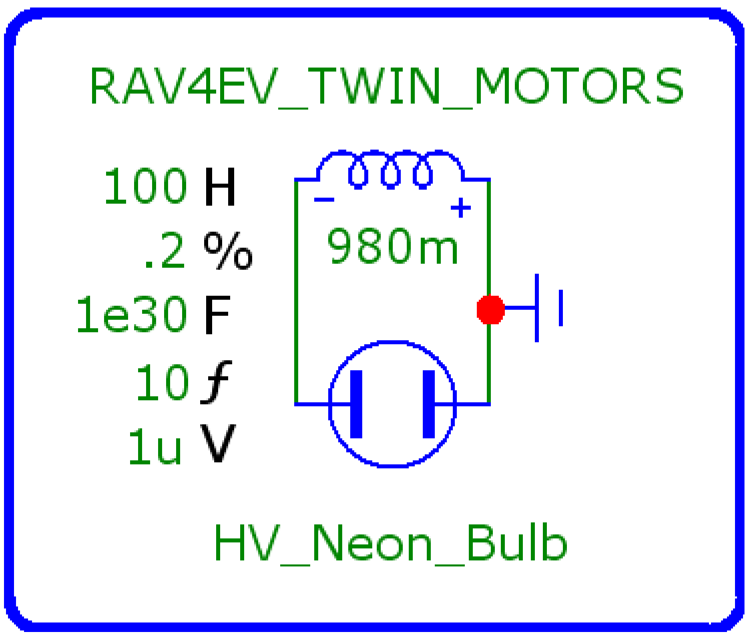


More power may be gained by reducing the 6.7667H inductance of the coil to 980mH...





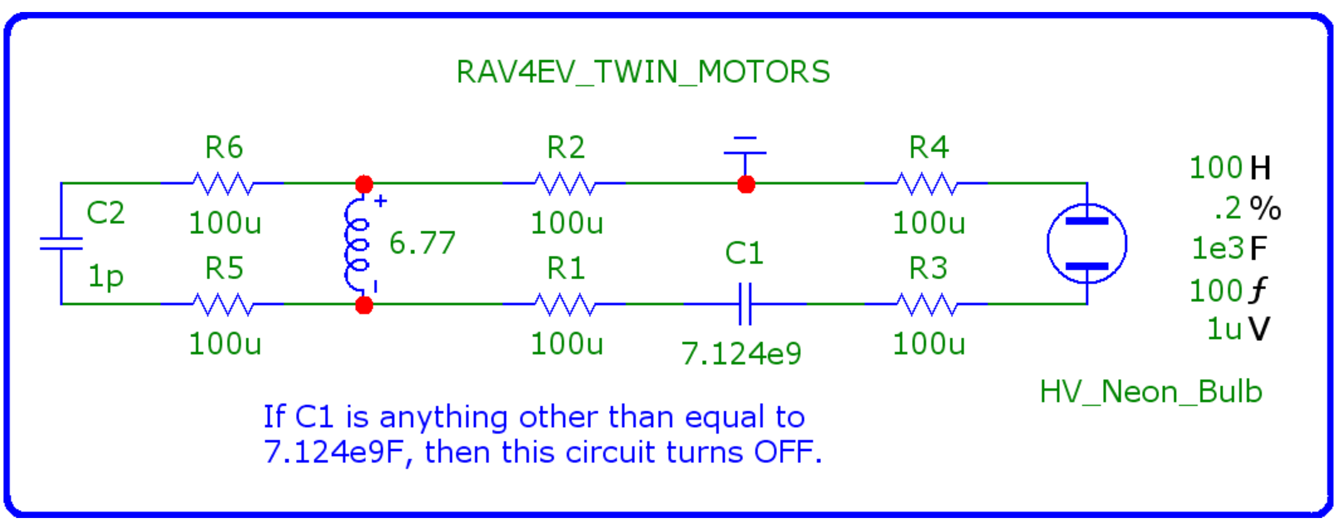
Transient Analysis Limits
Run
Add
Delete
Expand...
Stepping...
PSS...
Properties...
Help...
Maximum Run Time
1k
Output Start Time (tstart)
0
Maximum Time Step
0
Number of Points
51
Temperature
Linear
27
Retrace Runs
1
Run Options
Normal
State Variables
Zero
Operating Point
Operating Point Only
Auto Scale Ranges
Accumulate Plots
Fixed Time Step
Periodic Steady State
Ignore Expression Errors
Page
P
X Expression
Y Expression
X Range
Y Range
1 T V(RAV4EV_TWIN_MOTORS) 1000,0,200 1.2e+11,-8e+10,4e+1
2 T I(RAV4EV_TWIN_MOTORS) 1000,0,200 6e+8,-4e+8,2e+8
3 T RMS(V(RAV4EV_TWIN_MOTORS))*RMS(I(RAV4EV_TWIN_MOTORS)) 1000,0,200 3.75e+15,0,7.5e+14
4 T RMS(V(RAV4EV_TWIN_MOTORS))/RMS(I(RAV4EV_TWIN_MOTORS)) 1000,0,200 10000,0,2000
Calculates an operating point in starting the analysis.

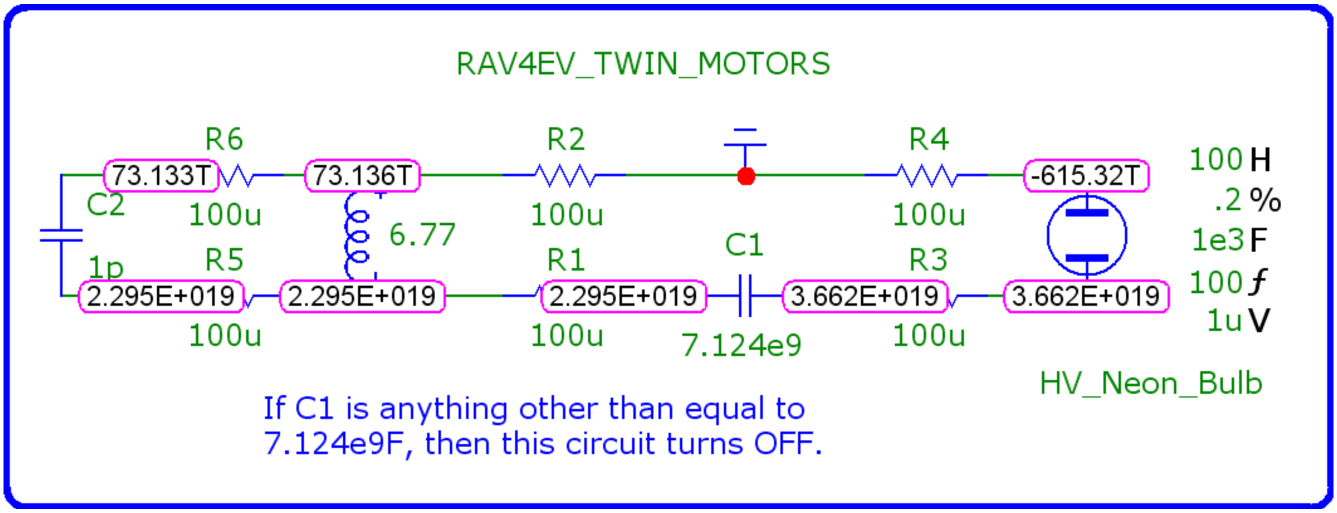


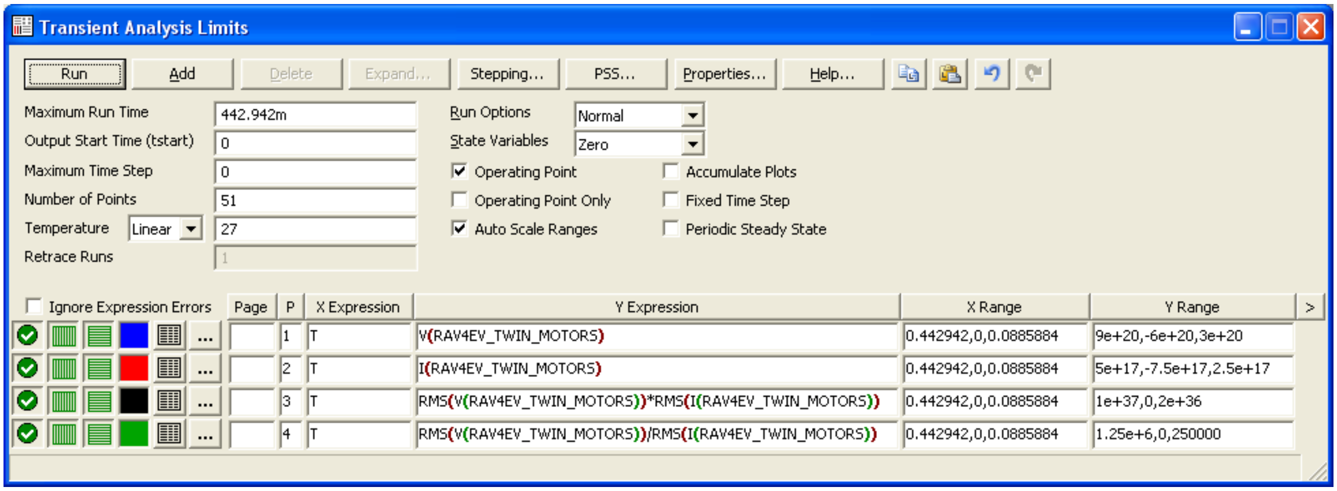
RAV4EV_TWIN_MOTORS
100 H
.2 %
1e30 F
10 ƒ
1u V
980m
HV_Neon_Bulb

This magnification of power...

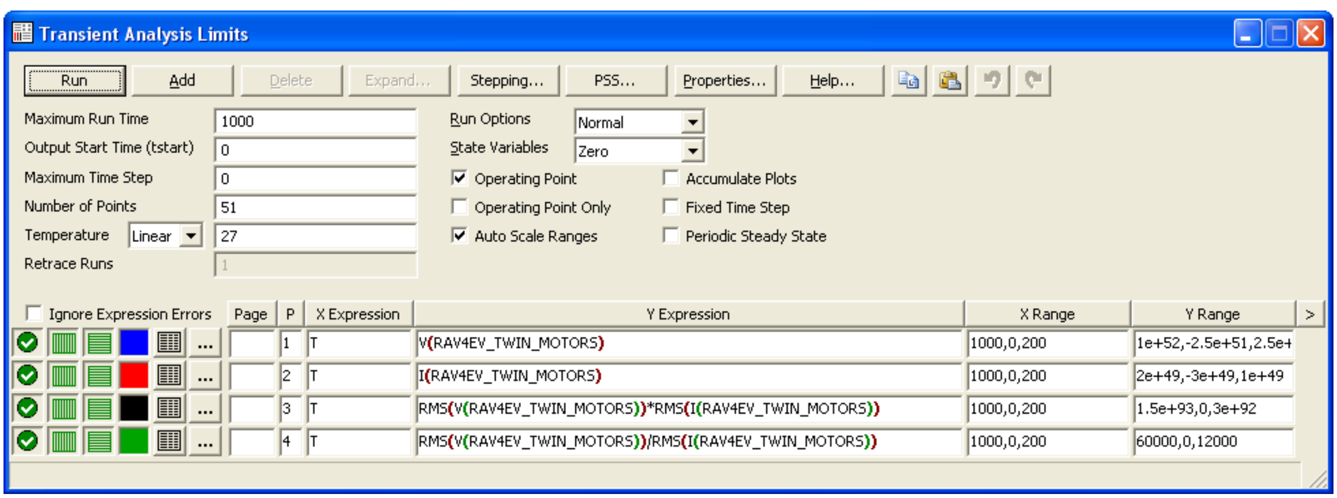
...gets worse as we add more components to compliment this simplicity...

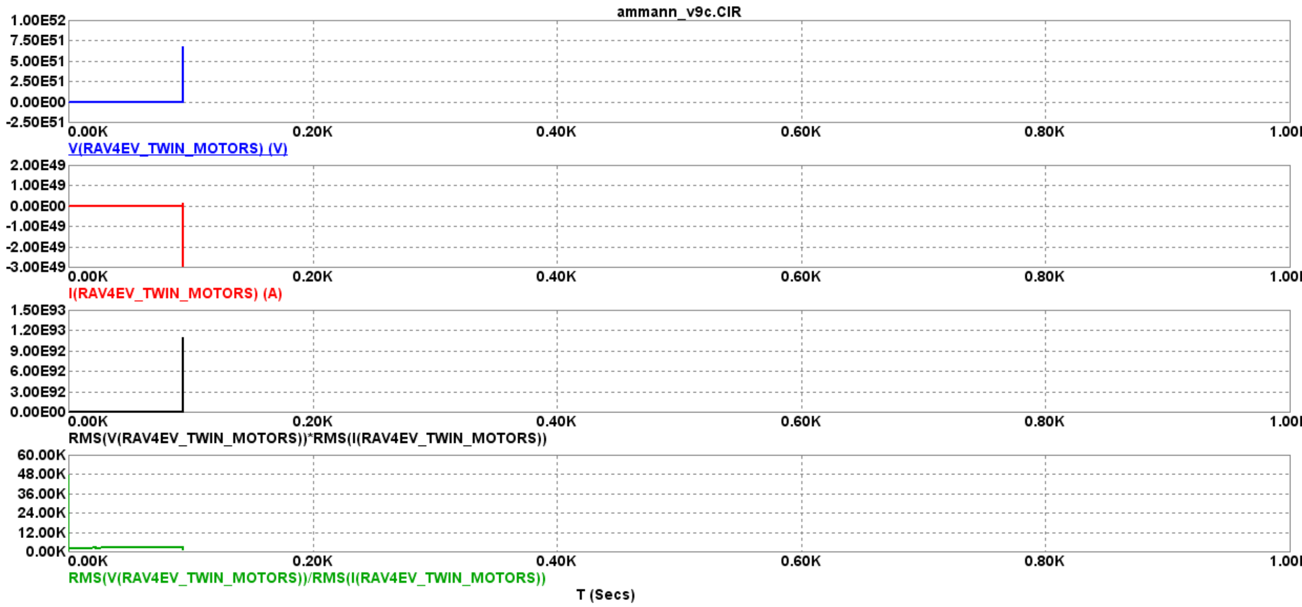


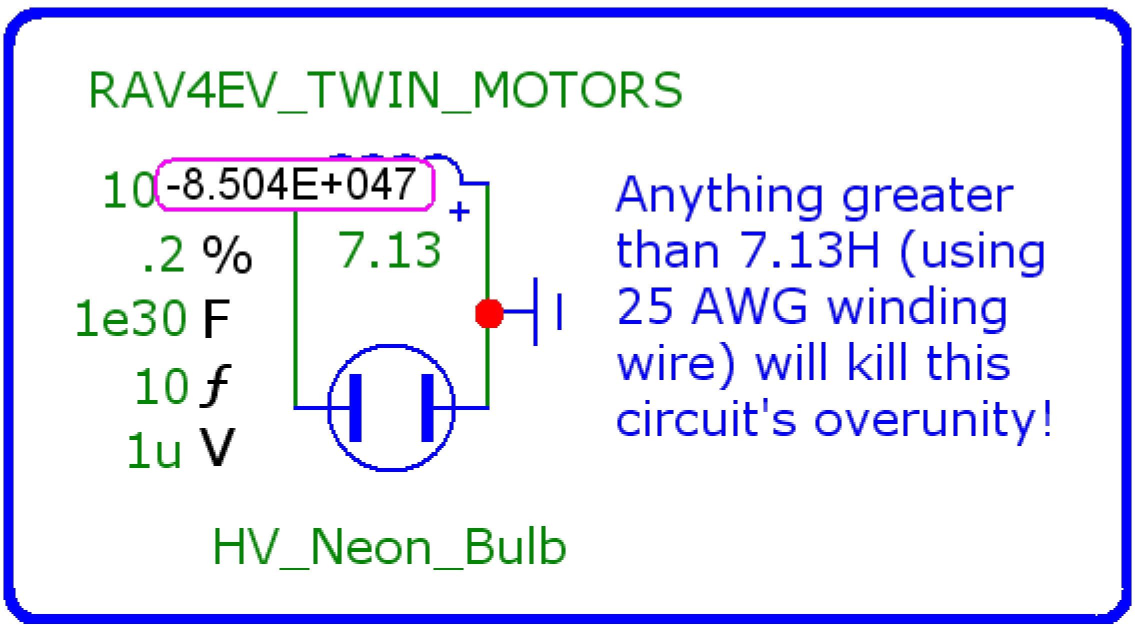


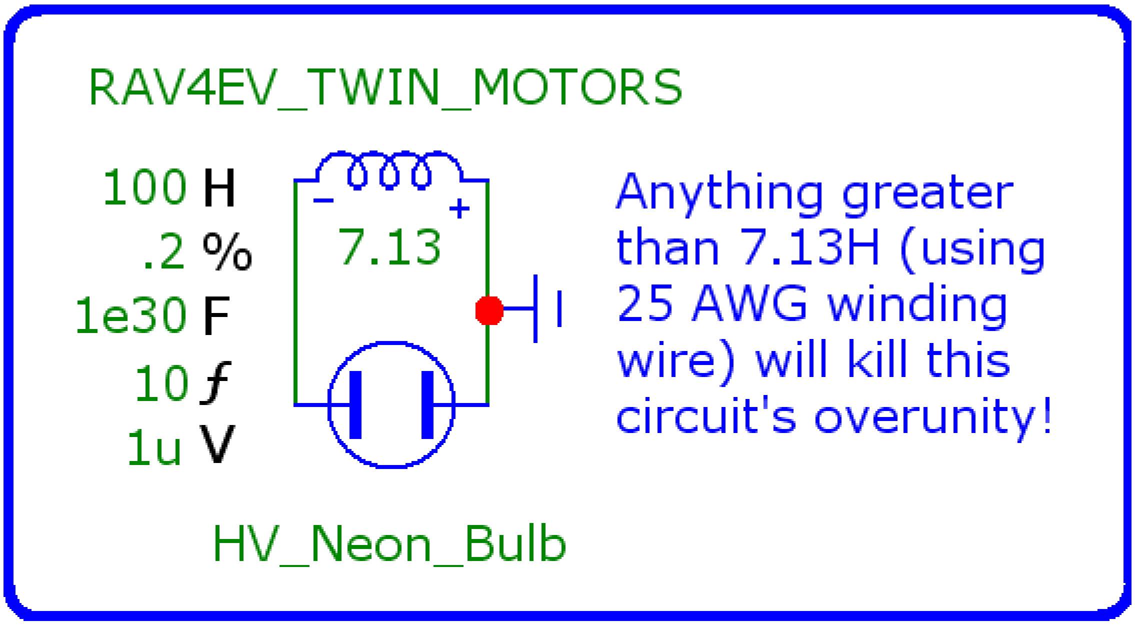


Lest you think that these simulations are bogus for lack of limitations...

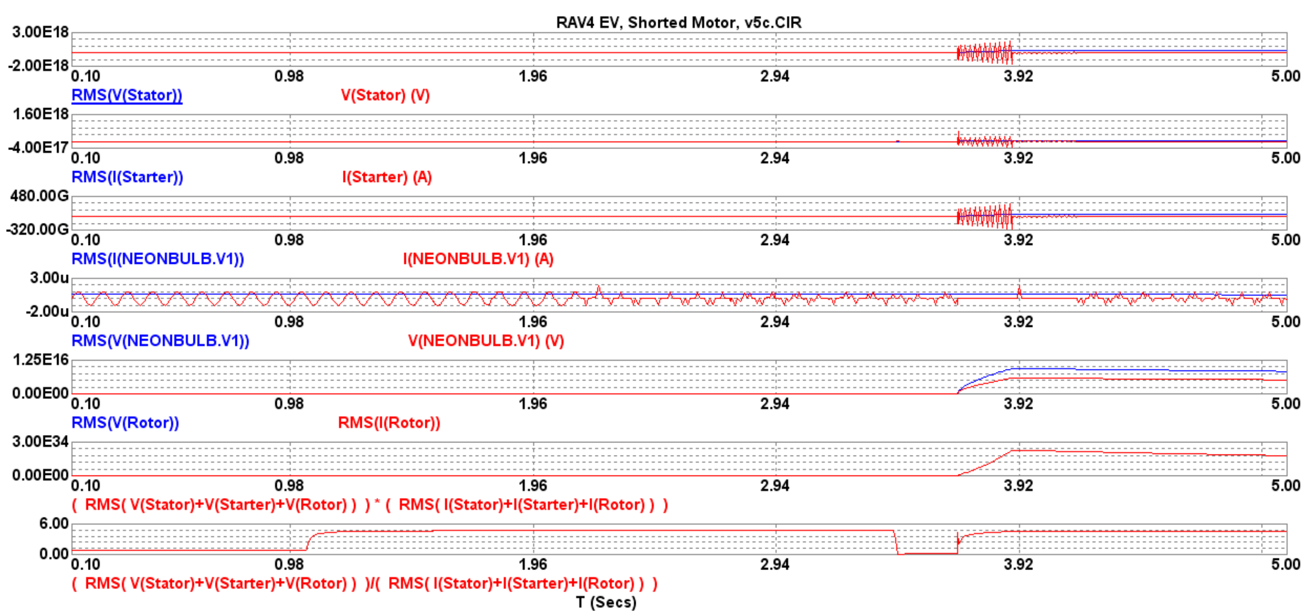


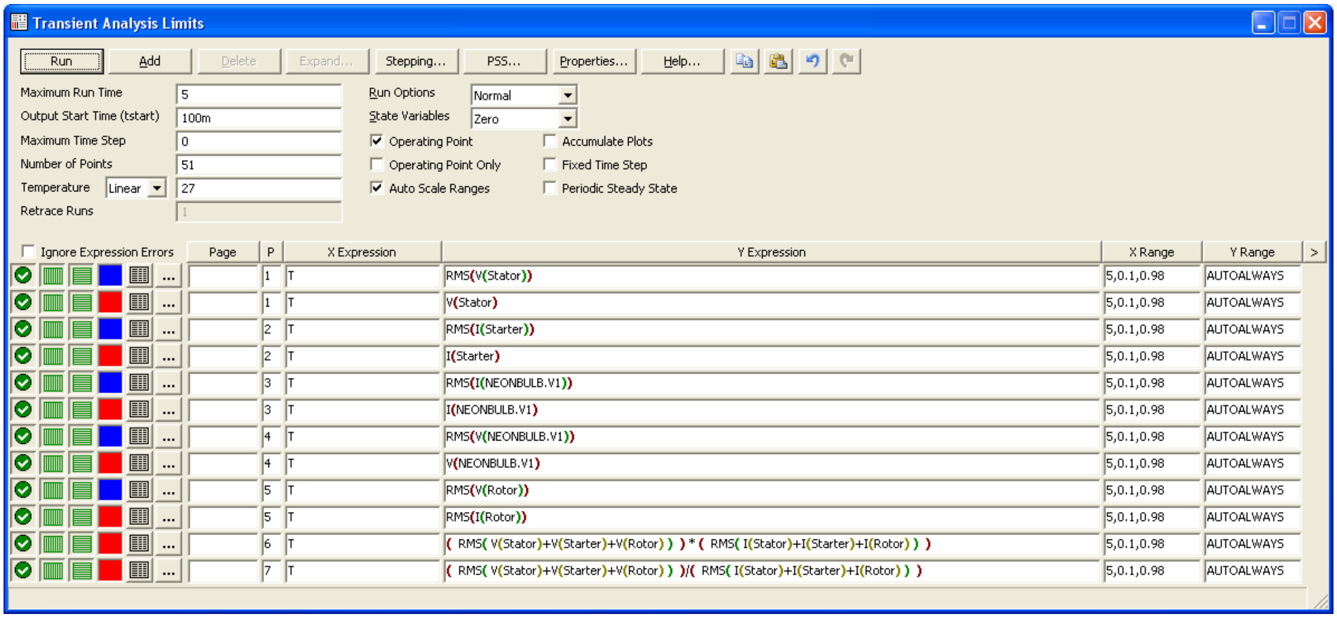

ammann_v9c.CIR
1.00E52
7.50E51
5.00E51
2.50E51
0.00E00
-2.50E51
0.00K
0.20K
0.40K
0.60K
0.80K
1.00K
V(RAV4EV_TWIN_MOTORS) (V)
2.00E49
1.00E49
0.00E00
-1.00E49
-2.00E49
-3.00E49
I(RAV4EV_TWIN_MOTORS) (A)
1.50E93
1.20E93
9.00E92
6.00E92
3.00E92
0.00E00
RMS(V(RAV4EV_TWIN_MOTORS))*RMS(I(RAV4EV_TWIN_MOTORS))
60.00K
48.00K
36.00K
24.00K
12.00K
0.00K
RMS(V(RAV4EV_TWIN_MOTORS))/RMS(I(RAV4EV_TWIN_MOTORS))
T (Secs)

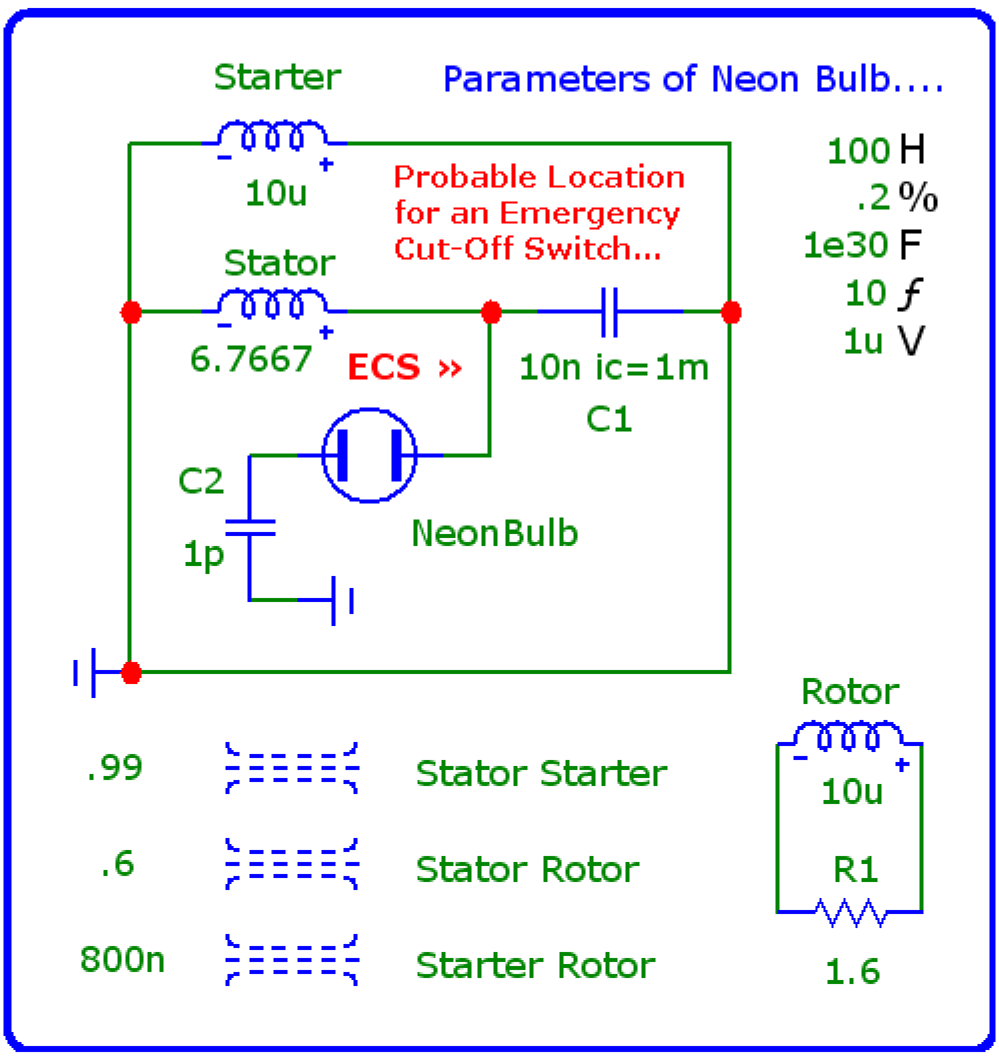

RAV4EV_TWIN_MOTORS
10
-8.504E+047
+
.2 %
7.13
1e30 F
I
10 ƒ
1u V
Anything greater than 7.13H (using 25 AWG winding wire) will kill this circuit's overunity!
HV_Neon_Bulb

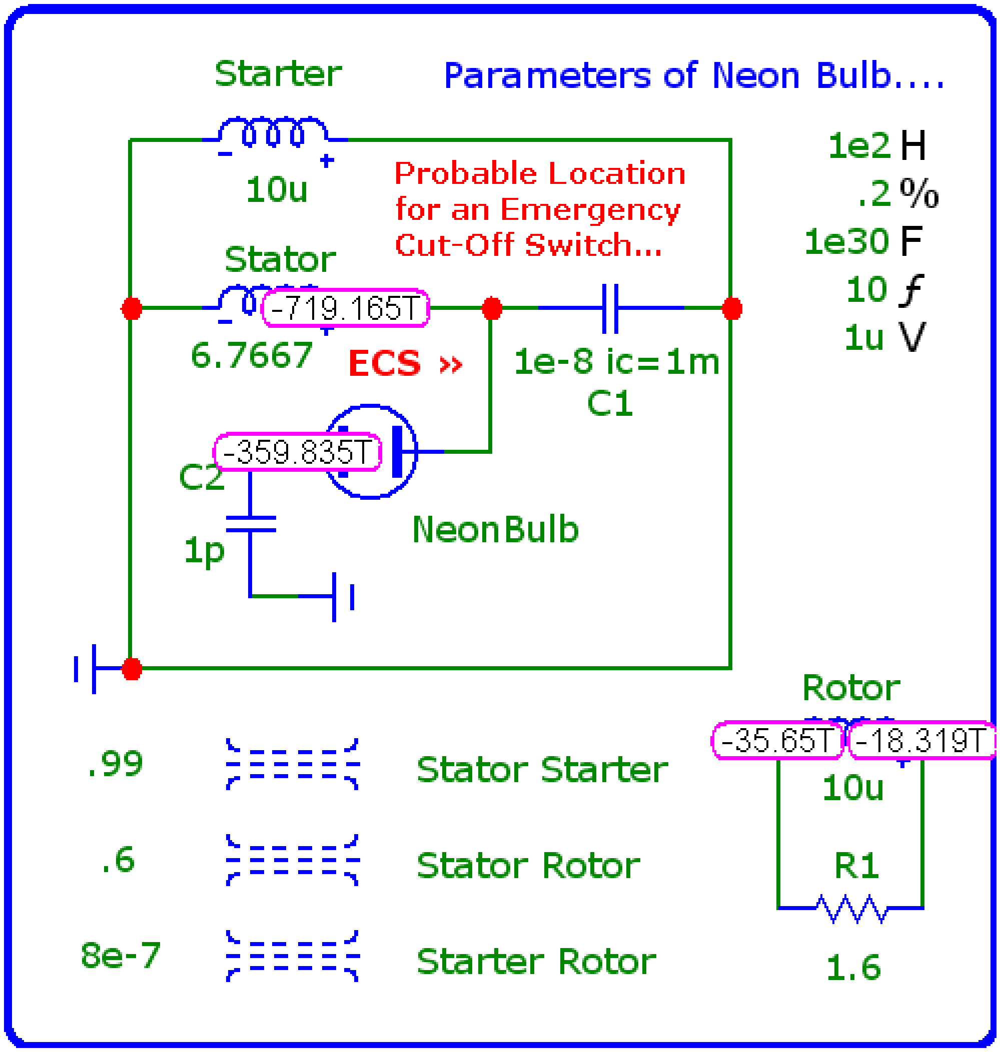


In the following images, below, I was hoping to reduce the current drawn from the voltage source. All I managed to accomplish was to INCREASE the amperage drawn from the voltage source tucked away inside of this modified neon bulb...




Transient Analysis Limits
Run
Add
Delete
Expand...
Stepping...
PSS...
Properties...
Help...
Maximum Run Time 5
Output Start Time (tstart) 100m
Maximum Time Step 0
Number of Points 51
Temperature Linear 27
Retrace Runs 1
Run Options Normal
State Variables Zero
Operating Point
Operating Point Only
Auto Scale Ranges
Accumulate Plots
Fixed Time Step
Periodic Steady State
Ignore Expression Errors
Page
P
X Expression
Y Expression
X Range
Y Range
1 T RMS(V(Stator)) 5,0.1,0.98 AUTOALWAYS
1 T V(Stator) 5,0.1,0.98 AUTOALWAYS
2 T RMS(I(Starter)) 5,0.1,0.98 AUTOALWAYS
2 T I(Starter) 5,0.1,0.98 AUTOALWAYS
3 T RMS(I(NEONBULB.V1)) 5,0.1,0.98 AUTOALWAYS
3 T I(NEONBULB.V1) 5,0.1,0.98 AUTOALWAYS
4 T RMS(V(NEONBULB.V1)) 5,0.1,0.98 AUTOALWAYS
4 T V(NEONBULB.V1) 5,0.1,0.98 AUTOALWAYS
5 T RMS(V(Rotor)) 5,0.1,0.98 AUTOALWAYS
5 T RMS(I(Rotor)) 5,0.1,0.98 AUTOALWAYS
6 T (RMS(V(Stator)+V(Starter)+V(Rotor))) * (RMS(I(Stator)+I(Starter)+I(Rotor))) 5,0.1,0.98 AUTOALWAYS
7 T (RMS(V(Stator)+V(Starter)+V(Rotor)))/(RMS(I(Stator)+I(Starter)+I(Rotor))) 5,0.1,0.98 AUTOALWAYS


Starter
Parameters of Neon Bulb....
10u
Probable Location
for an Emergency
Cut-Off Switch...
100 H
.2 %
1e30 F
10 ƒ
1u V
Stator
6.7667
ECS »
10n ic=1m
C1
C2
1p
NeonBulb
Rotor
.99
Stator Starter
10u
.6
Stator Rotor
R1
800n
Starter Rotor
1.6



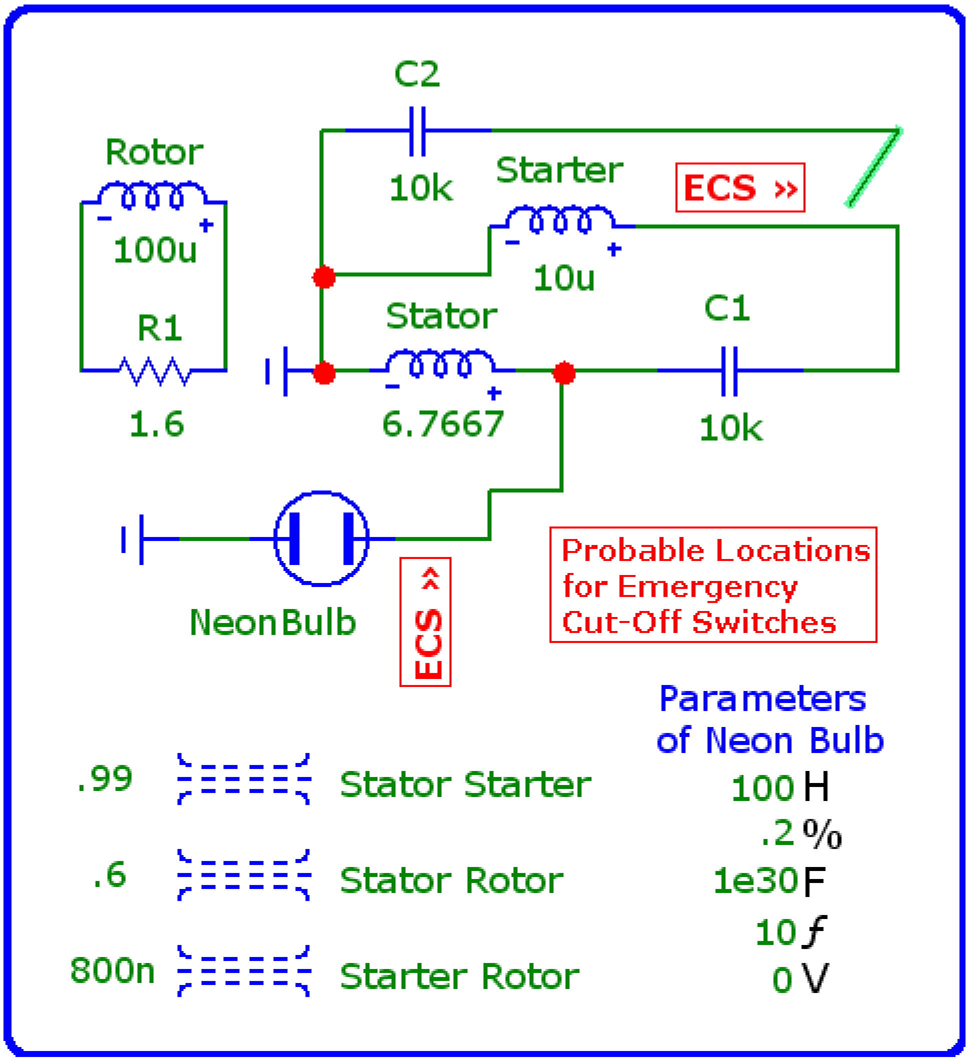
Whoops...! This modification of the spark gap's internal structure is so powerful, and so one-sided, that no capacitor placed on the outside can deter it from its objective which is to amplify its output to the self-destruction of its host! Yet, raise the stator coil's inductance too high, as witnessed at several pages up above, and that excessive inductive load acts like a switch to shut off this circuit's overunity gainfulness.

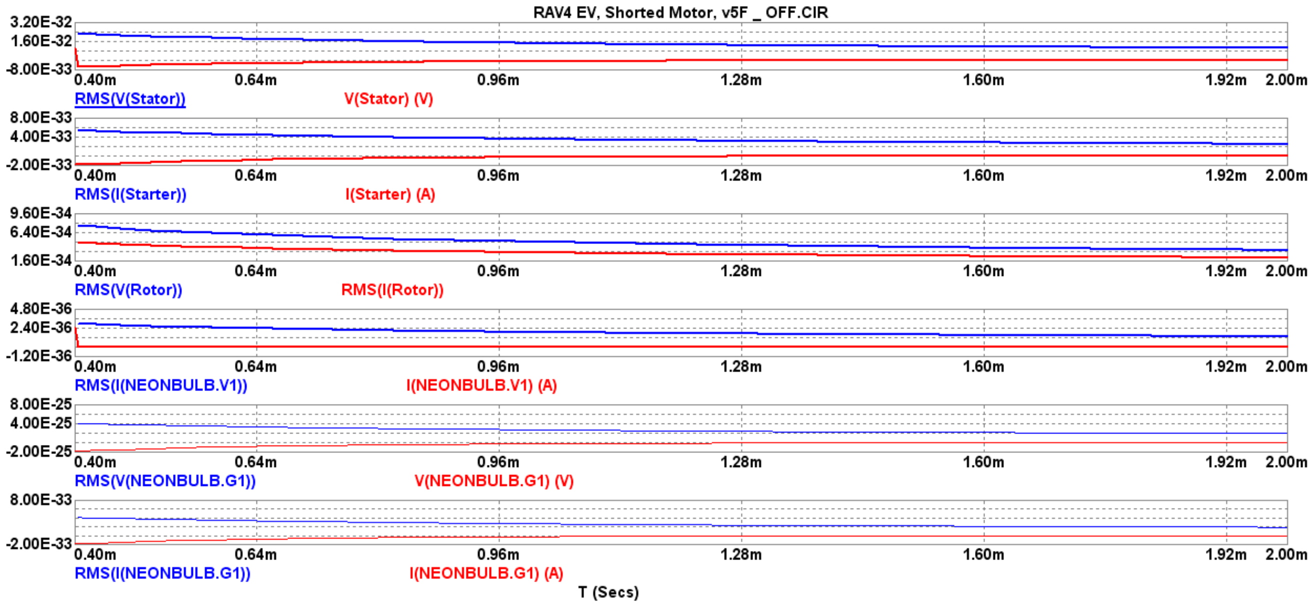
These two diagnostic factors, plus the triangular shapes of the stator coil's voltage waveform and the starter coil's amperage waveform, indicates (to me) that capacitive reactance is dominating (ruling; feeding) the behavior of this circuit (which would also account for its explosive tendency). And, inductive reactance serves as this circuit's contributor of impedance (load). This makes sense considering what a spark gap is...***a dielectrical "gap"!***

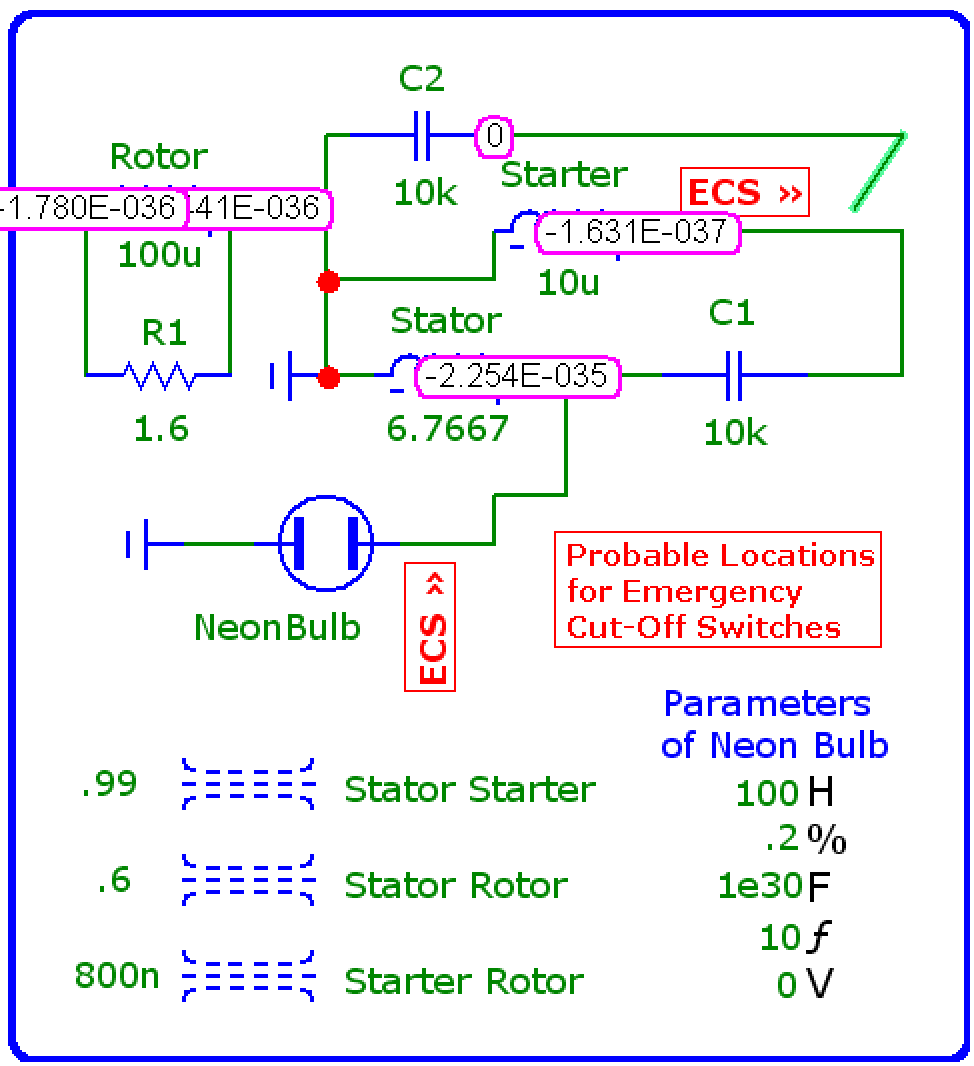
Raising the capacitances of C1 and C2 helps the resistor, R1, do its job of regulating the proportionality of voltage versus amperage on, not only the Rotor coil immediately adjacent to this resistor, but also the proportionality between the voltage on the Stator coil and the amperage on the Starter coil by way of distribution of their capacitances? *Perhaps...*

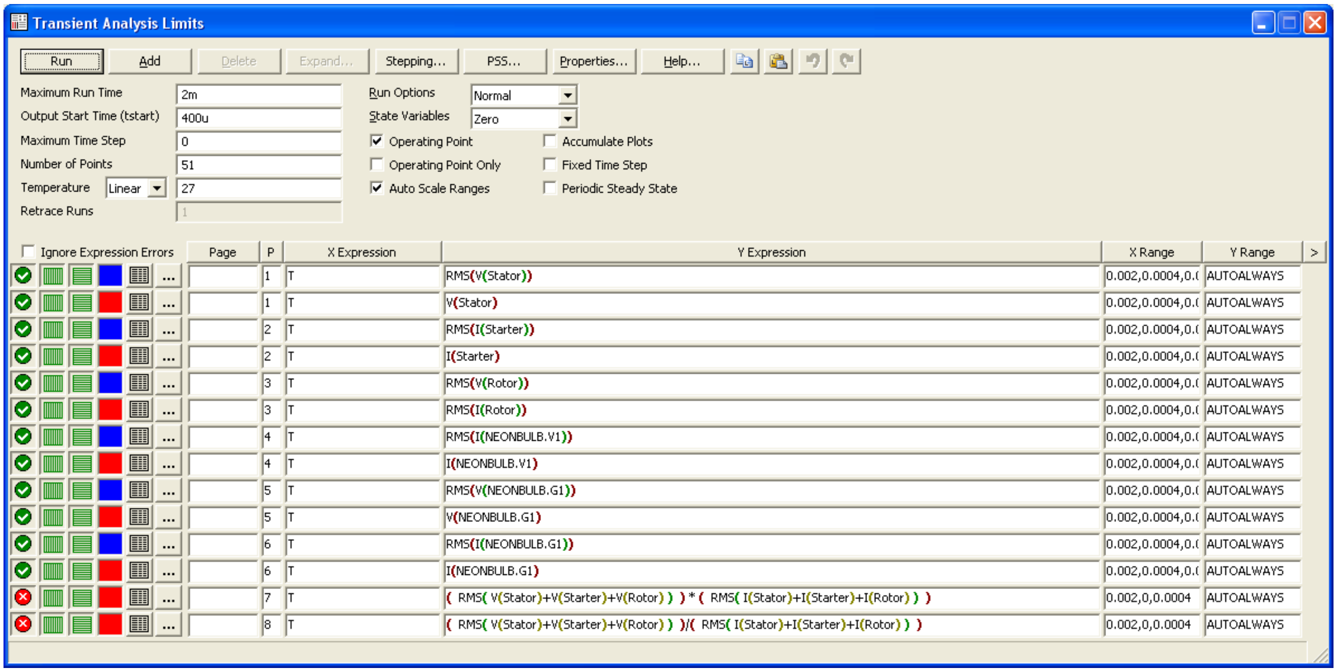
BTW, an alloy of gold and silver powder may serve to improve conductivity within the interior of this customized neon bulb to counteract any resistance which may, or may not, occur due to any addition of powdered iron and powdered silica. Just a hunch. Or, I could be wrong...

Here are some more screenshots...

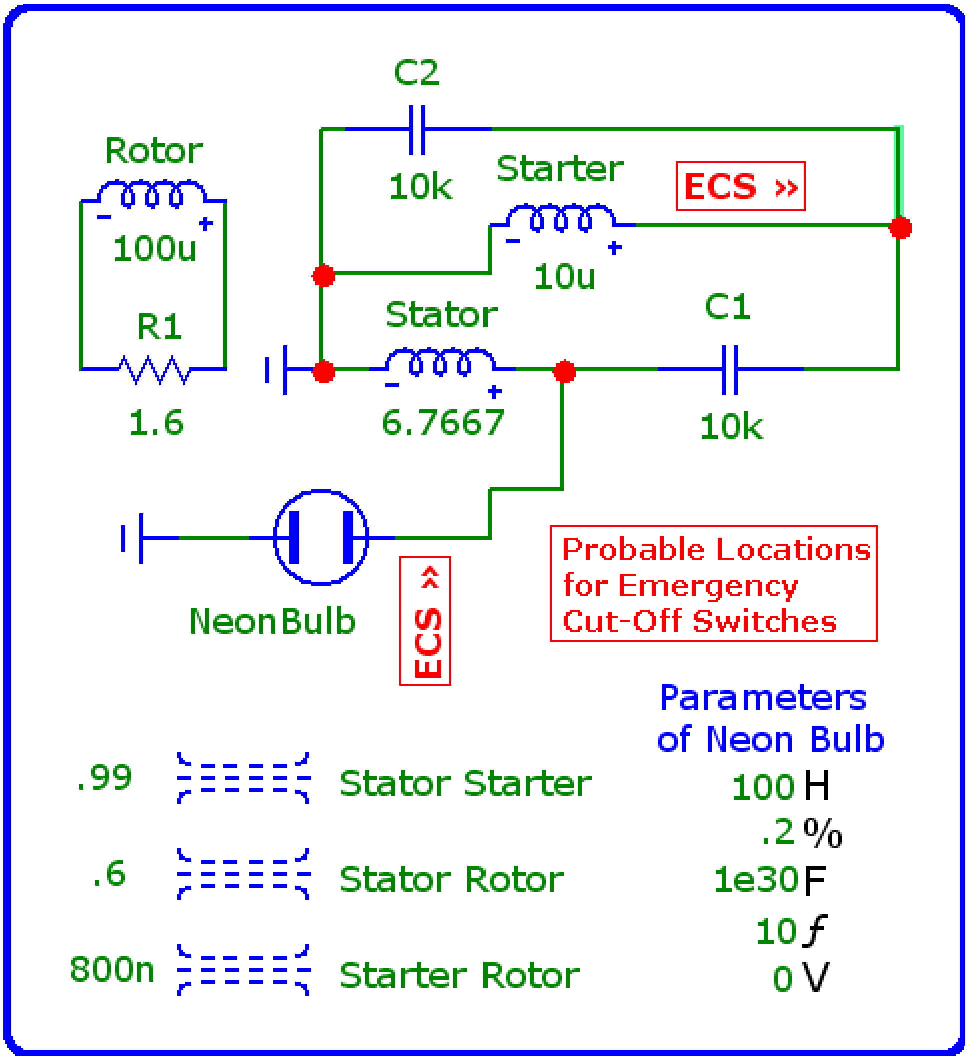


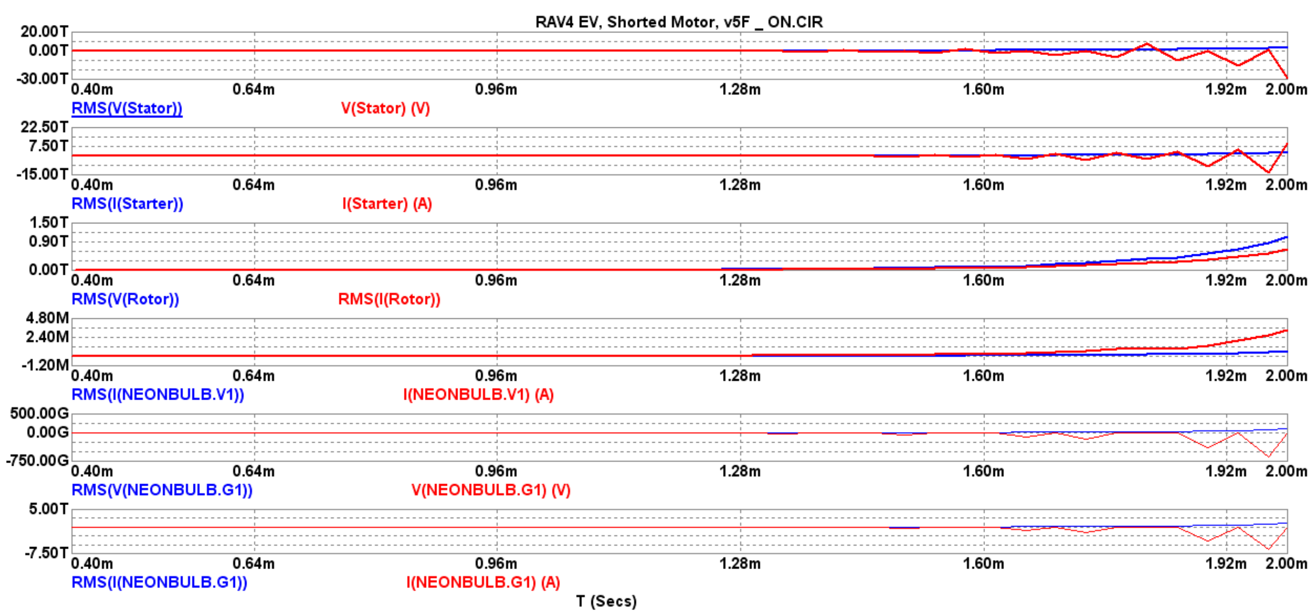

RAV4 EV, Shorted Motor, v5F _ OFF.CIR
3.20E-32
1.60E-32
-8.00E-33
RMS(V(Stator))
V(Stator) (V)
8.00E-33
4.00E-33
-2.00E-33
RMS(I(Starter))
I(Starter) (A)
9.60E-34
6.40E-34
1.60E-34
RMS(V(Rotor))
RMS(I(Rotor))
4.80E-36
2.40E-36
-1.20E-36
RMS(I(NEONBULB.V1))
I(NEONBULB.V1) (A)
8.00E-25
4.00E-25
-2.00E-25
RMS(V(NEONBULB.G1))
V(NEONBULB.G1) (V)
8.00E-33
-2.00E-33
RMS(I(NEONBULB.G1))
I(NEONBULB.G1) (A)
0.40m 0.64m 0.96m 1.28m 1.60m 1.92m 2.00m
T (Secs)

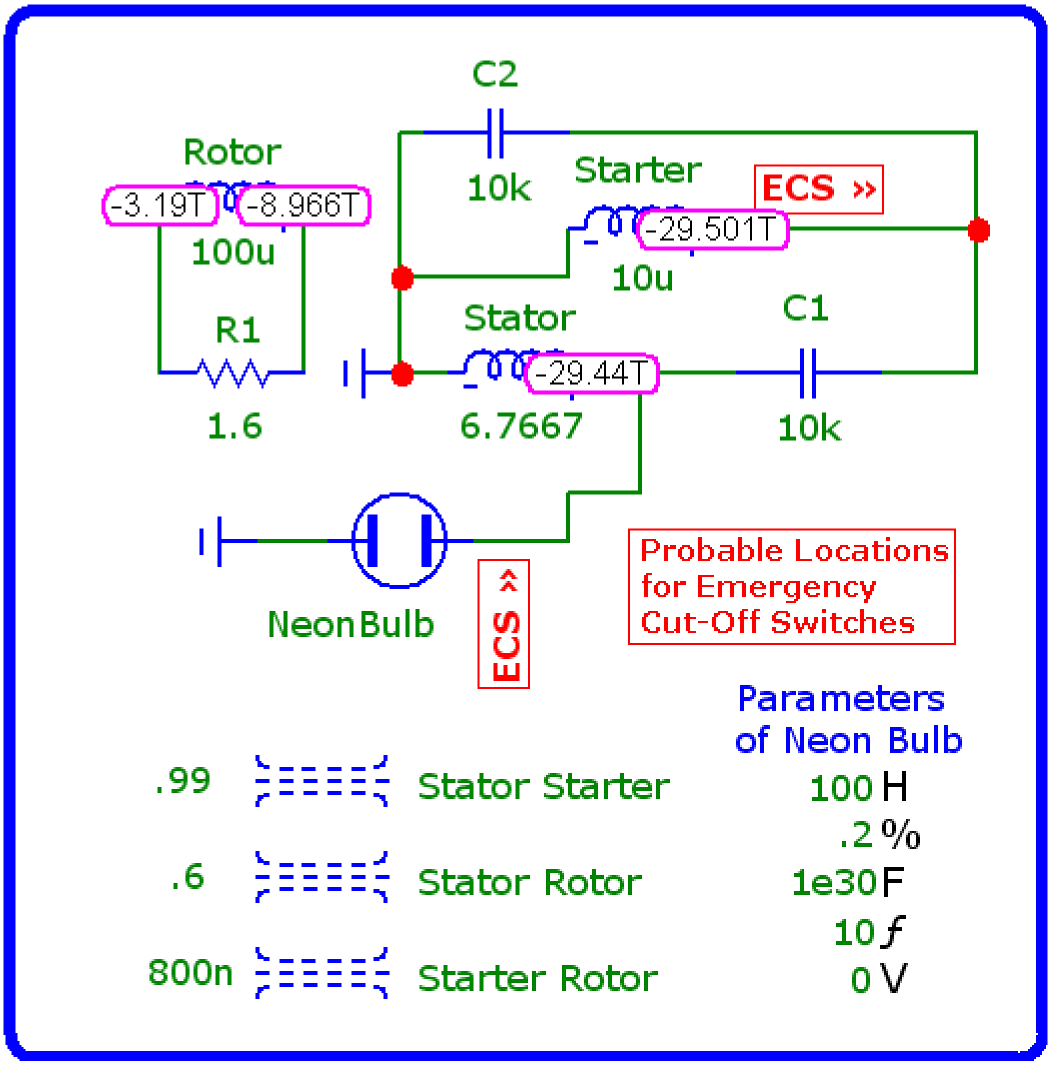

C2
0
10k
Rotor
-1.780E-036
-41E-036
100u
Starter
ECS »
-1.631E-037
10u
R1
Stator
C1
-2.254E-035
1.6
6.7667
10k
NeonBulb
ECS »
Probable Locations
for Emergency
Cut-Off Switches
Parameters
of Neon Bulb
.99 Stator Starter
100 H
.2 %
.6 Stator Rotor
1e30 F
10 ƒ
800n Starter Rotor
0 V



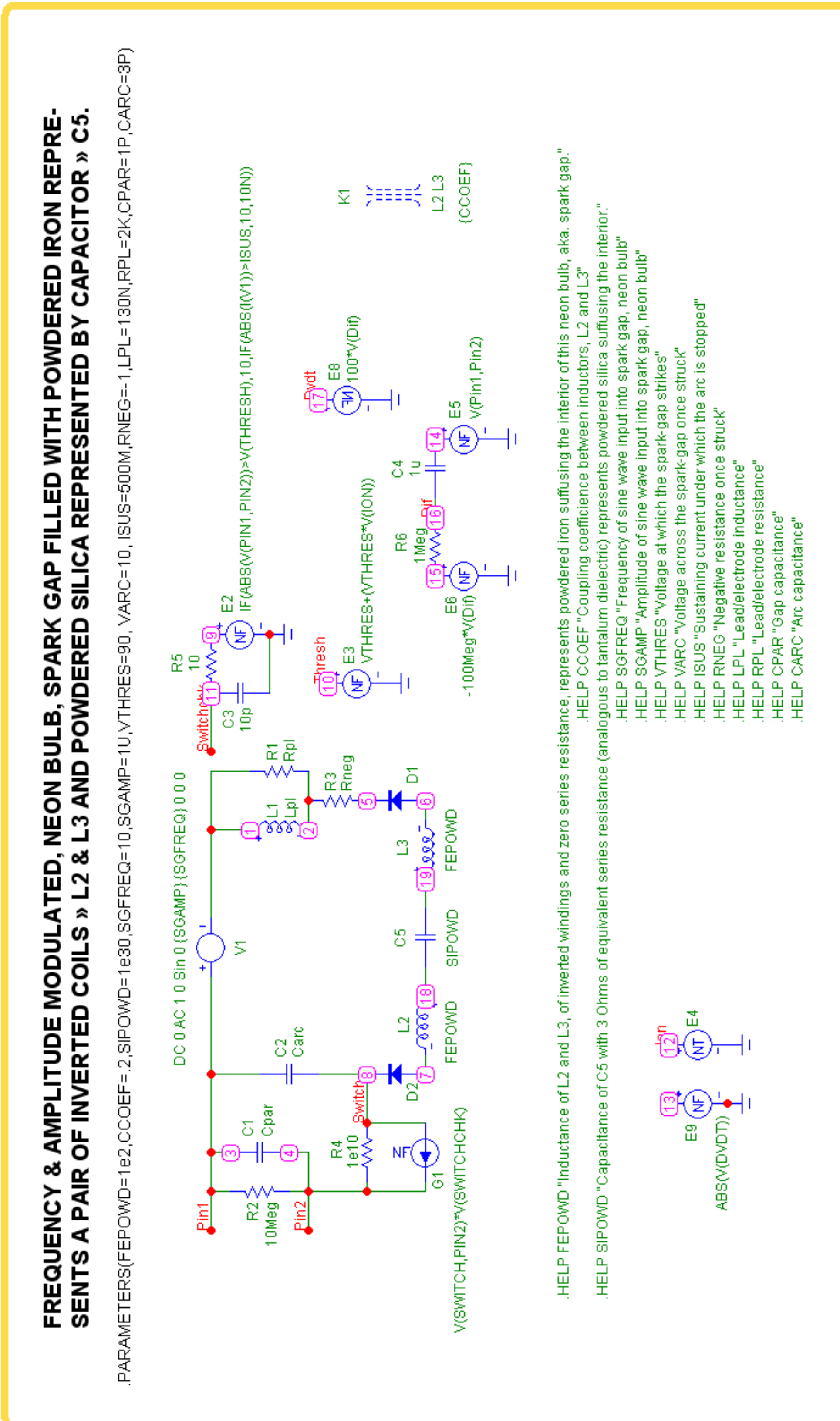
Transient Analysis Limits
Run
Add
Delete
Expand...
Stepping...
PSS...
Properties...
Help...
Maximum Run Time
2m
Output Start Time (tstart)
400u
Maximum Time Step
0
Number of Points
51
Temperature
Linear
27
Retrace Runs
1
Run Options
Normal
State Variables
Zero
Operating Point
Operating Point Only
Auto Scale Ranges
Accumulate Plots
Fixed Time Step
Periodic Steady State
Ignore Expression Errors
Page
P
X Expression
Y Expression
X Range
Y Range
1 T RMS(V(Stator)) 0.002,0.0004,0.(AUTOALWAYS
1 T V(Stator) 0.002,0.0004,0.(AUTOALWAYS
2 T RMS(I(Starter)) 0.002,0.0004,0.(AUTOALWAYS
2 T I(Starter) 0.002,0.0004,0.(AUTOALWAYS
3 T RMS(V(Rotor)) 0.002,0.0004,0.(AUTOALWAYS
3 T RMS(I(Rotor)) 0.002,0.0004,0.(AUTOALWAYS
4 T RMS(I(NEONBULB.V1)) 0.002,0.0004,0.(AUTOALWAYS
4 T I(NEONBULB.V1) 0.002,0.0004,0.(AUTOALWAYS
5 T RMS(V(NEONBULB.G1)) 0.002,0.0004,0.(AUTOALWAYS
5 T V(NEONBULB.G1) 0.002,0.0004,0.(AUTOALWAYS
6 T RMS(I(NEONBULB.G1)) 0.002,0.0004,0.(AUTOALWAYS
6 T I(NEONBULB.G1) 0.002,0.0004,0.(AUTOALWAYS
7 T (RMS(V(Stator)+V(Starter)+V(Rotor))) * (RMS(I(Stator)+I(Starter)+I(Rotor))) 0.002,0,0.0004 AUTOALWAYS
8 T (RMS(V(Stator)+V(Starter)+V(Rotor)))/(RMS(I(Stator)+I(Starter)+I(Rotor))) 0.002,0,0.0004 AUTOALWAYS


C2
10k
Rotor
100u
R1
1.6
Starter
10u
ECS »
Stator
6.7667
C1
10k
NeonBulb
ECS »
Probable Locations
for Emergency
Cut-Off Switches
Parameters
of Neon Bulb
100 H
.2 %
1e30 F
10 ƒ
0 V
.99
Stator Starter
.6
Stator Rotor
800n
Starter Rotor


RAV4 EV, Shorted Motor, v5F _ ON.CIR
20.00T
0.00T
-30.00T
RMS(V(Stator))
V(Stator) (V)
22.50T
7.50T
-15.00T
RMS(I(Starter))
I(Starter) (A)
1.50T
0.90T
0.00T
RMS(V(Rotor))
RMS(I(Rotor))
4.80M
2.40M
-1.20M
RMS(I(NEONBULB.V1))
I(NEONBULB.V1) (A)
500.00G
0.00G
-750.00G
RMS(V(NEONBULB.G1))
V(NEONBULB.G1) (V)
5.00T
-7.50T
RMS(I(NEONBULB.G1))
I(NEONBULB.G1) (A)
0.40m
0.64m
0.96m
1.28m
1.60m
1.92m
2.00m
T (Secs)



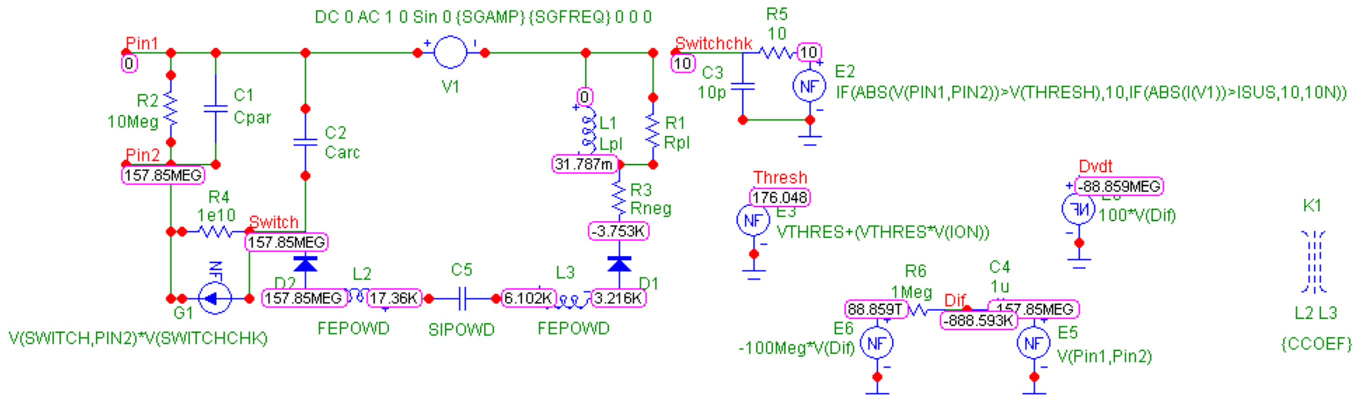
Here are the node numbers for Micro-Cap's spark gap macro...



And here are the nodal voltages when attached to the ON/OFF circuit immediately above...

FREQUENCY & AMPLITUDE MODULATED, NEON BULB, SPARK GAP FILLED WITH POWDERED IRON REPRESENTS A PAIR OF INVERTED COILS » L2 & L3 AND POWDERED SILICA REPRESENTED BY CAPACITOR » C5.

.PARAMETERS(FEPOWD=1e2,CCOEF=.2,SIPOWD=1e30,SGFREQ=10,SGAMP=1U,VTHRES=90, VARC=10, ISUS=500M,RNEG=-1,LPL=130N,RPL=2K,CPAR=1P,CARC=3P)

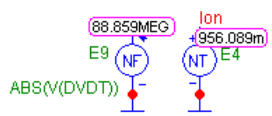


.HELP FEPOWD "Inductance of L2 and L3, of inverted windings and zero series resistance, represents powdered iron suffusing the interior of this neon bulb, aka. spark gap."

.HELP CCOEF "Coupling coefficience between inductors, L2 and L3"

.HELP SIPOWD "Capacitance of C5 with 3 Ohms of equivalent series resistance (analogous to tantalum dielectric) represents powdered silica suffusing the interior."

.HELP SGFREQ "Frequency of sine wave input into spark gap, neon bulb"
.HELP SGAMP "Amplitude of sine wave input into spark gap, neon bulb"
.HELP VTHRES "Voltage at which the spark-gap strikes"
.HELP VARC "Voltage across the spark-gap once struck"
.HELP ISUS "Sustaining current under which the arc is stopped"
.HELP RNEG "Negative resistance once struck"
.HELP LPL "Lead/electrode inductance"
.HELP RPL "Lead/electrode resistance"
.HELP CPAR "Gap capacitance"
.HELP CARC "Arc capacitance"



For the past several pages of screenshots, you've seen the very aggressive result of a set of alterations to Micro-Cap's spark gap macro. Yet, one thing was missing....tenderness without sacrificing stubbornness. By adding a ground adjacent to the negative resistor, it is possible to slightly tame this new wild animal yet not sacrifice its persistent drive to contribute an overunity gain towards whatever circuit surrounds it...

This allows me to stabilize the erratic behavior of the simulator and reduce the contribution of current emanating from out of the sine wave voltage source to exactly whatever voltage it is set to emit. Furthermore, it doesn't matter what voltage it is set to, for this will not impact the buildup of power (watts) accumulating within the spark gap's host-circuit. Consequently, in the following images, I've set the voltage at one femto volt. But in a few examples, the setting is 1kV and, yet, the outcome is the same. Thus, with the help of this ground placed inside of this spark gap macro, the behavior of its voltage source has been altered.

If I set the sine wave voltage source to zero volts, the behavior of the simulator becomes erratic exhibiting error messages, such as: “matrix is singular,” etc. So, experience teaches me that a little bit of voltage...as little as possible....is better than no voltage.

This makes for a total of five connections to this customized spark gap...

1. & 2. Two connections are the conventional terminals (labeled as, “pins” one and two in Micro-Cap's macro) connecting the two leads (electrodes) of a conventional spark gap to its host-circuit.

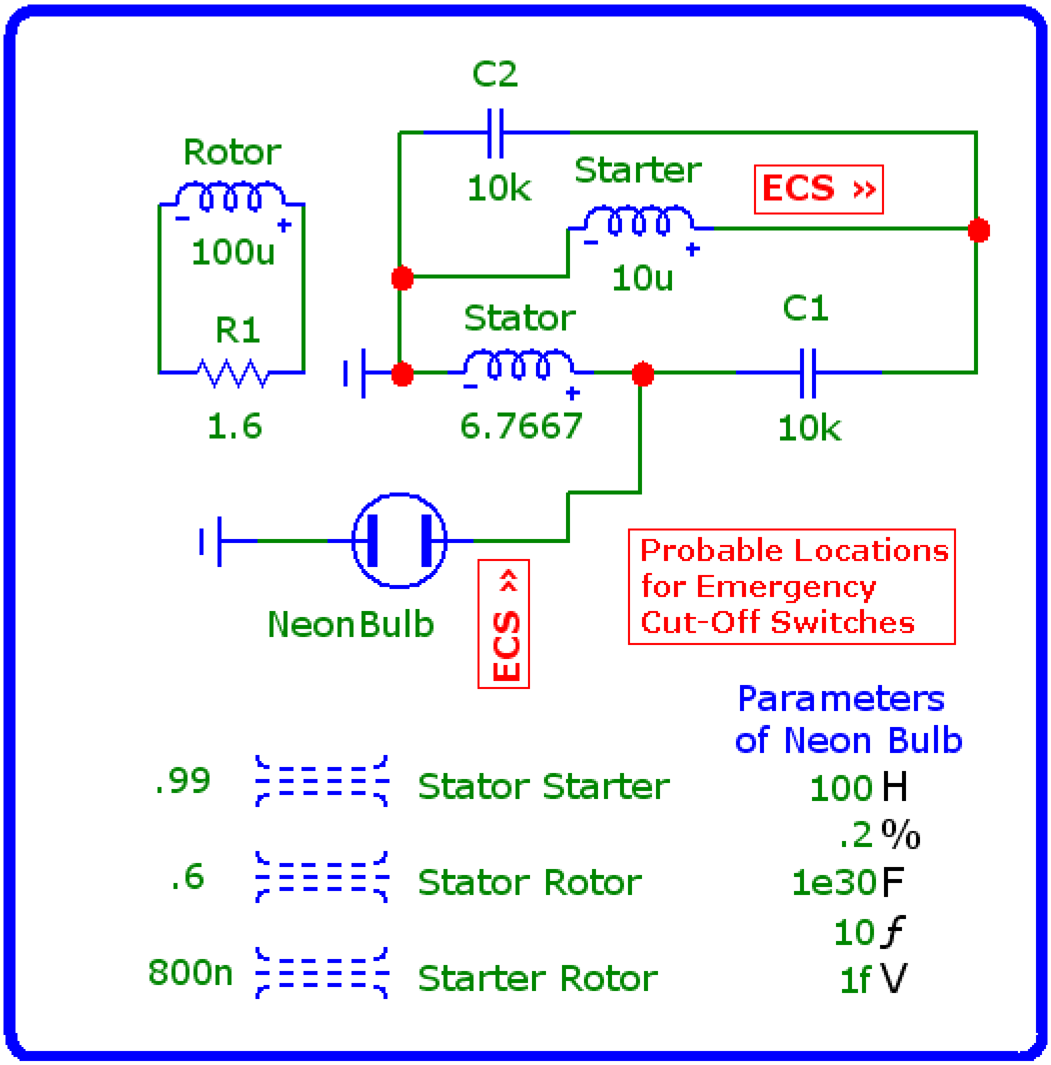
3. One connection for ground.

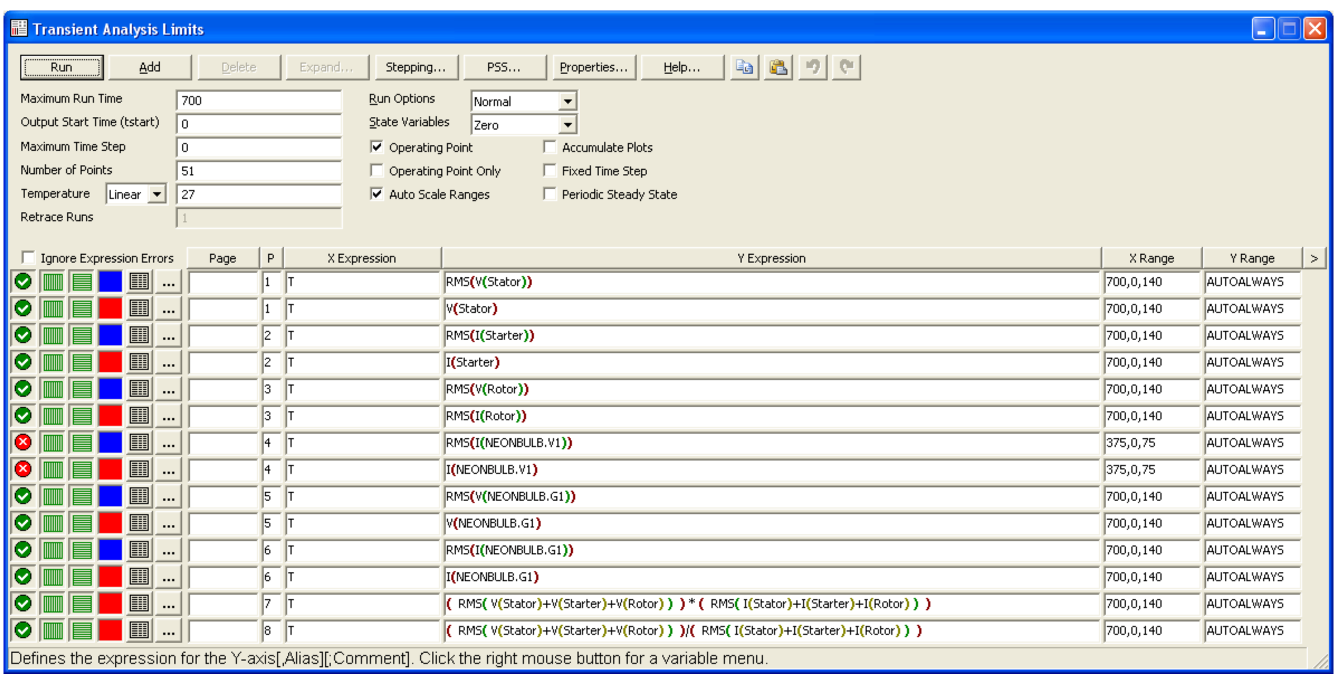
4. & 5. And two more connections, outside this spark gap, serving as the open terminals of a single coil wrapped around the spark gap's canister much like what Joseph Newman used and hid[1] from the public.

BTW, this could be vindication of the so-called Wikipedia article entitled, “Nikola Tesla Electric Car Hoax,”[2] in that he purportedly used wire (iron?) and twelve radio tubes (customized neon bulbs?) feeding a customized A/C three-phase motor (four tubes per phase winding?).

The following screenshots are simulations which were allowed to run for 700 seconds before terminating them...

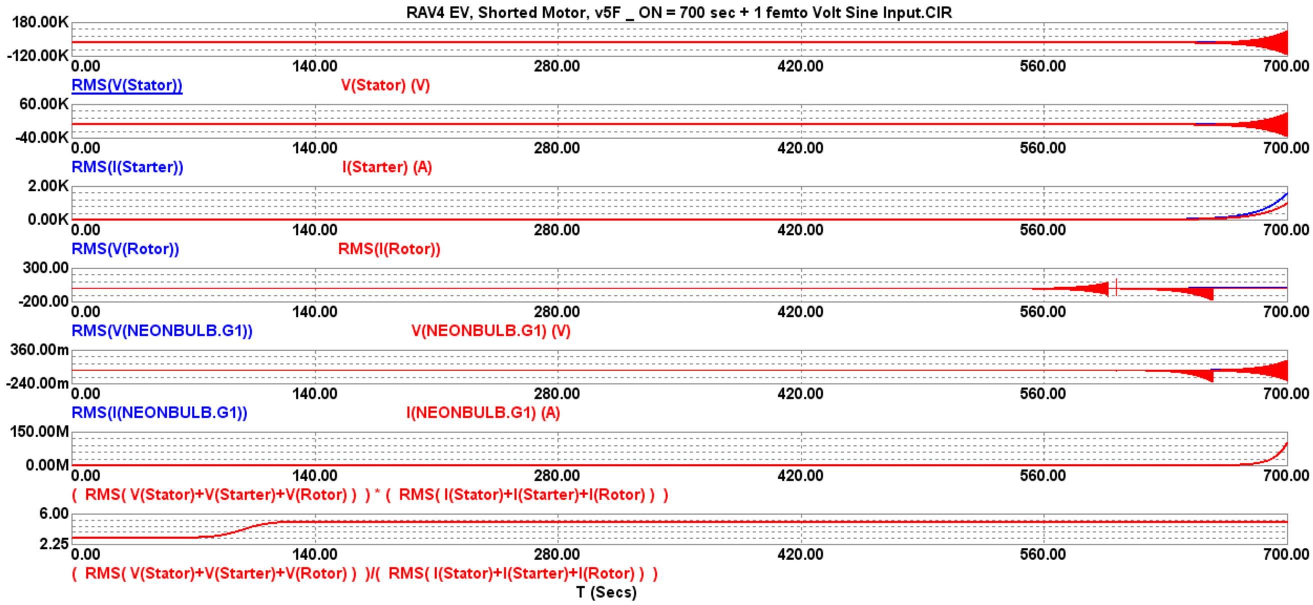
1 https://is.gd/kogina
2 https://is.gd/yogofe

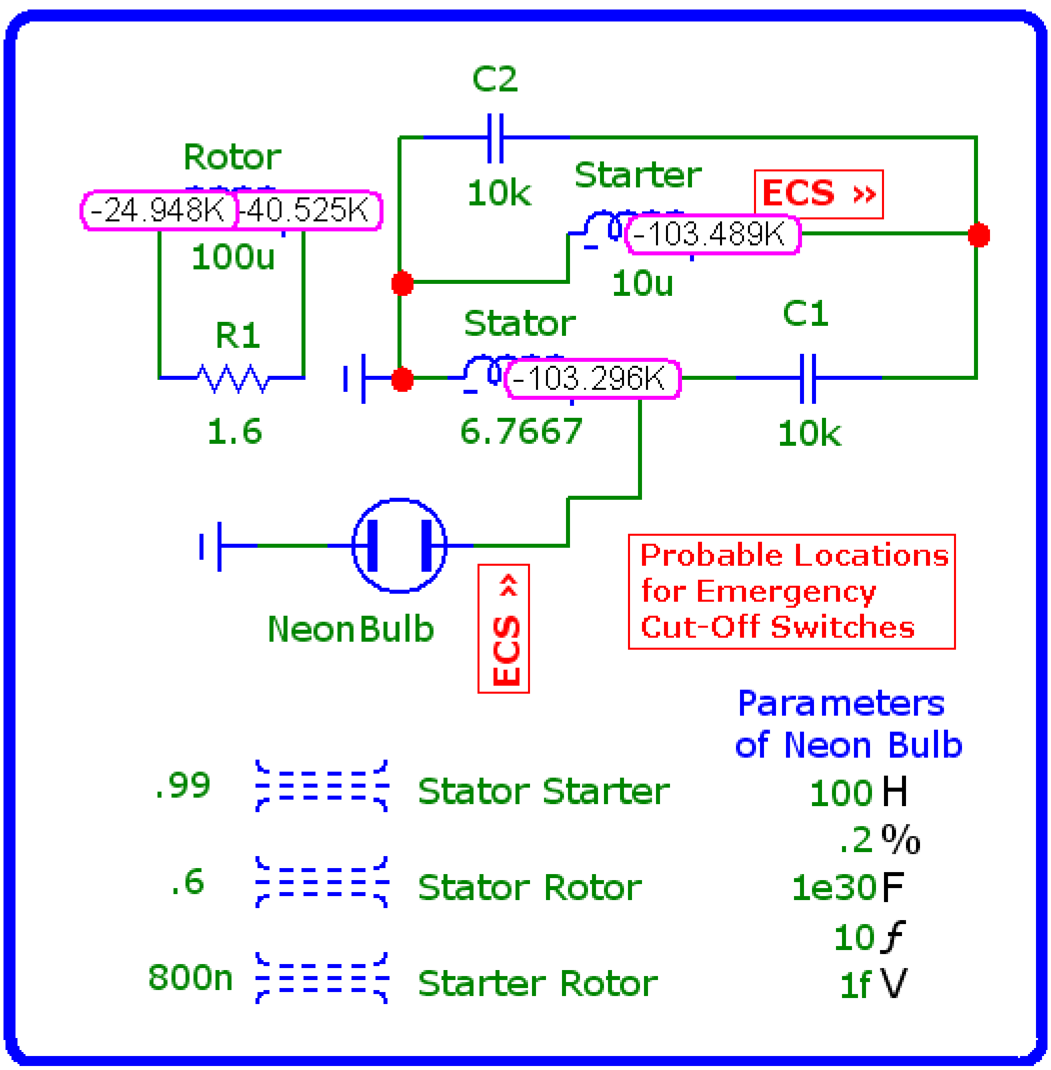


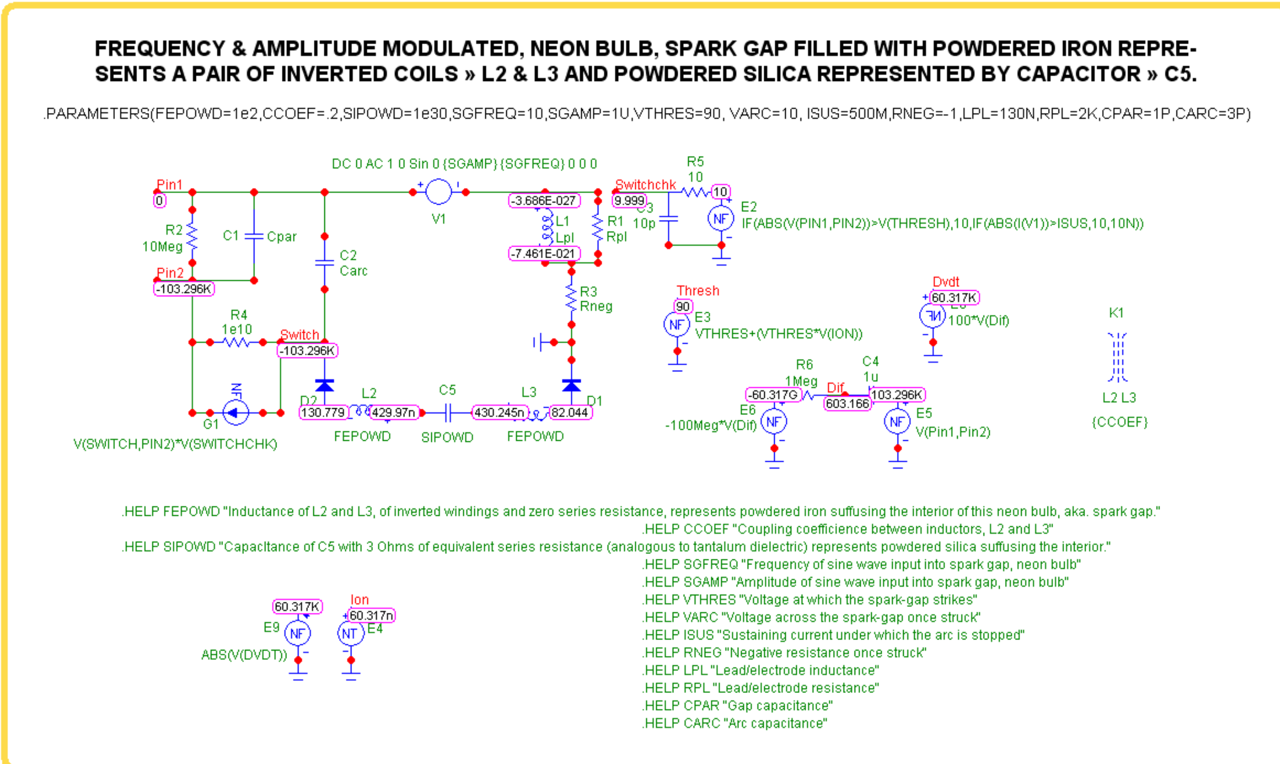


Page	P	X Expression	Y Expression	X Range	Y Range
	1	T	RMS(V(Stator))	700,0,140	AUTOALWAYS
	1	T	V(Stator)	700,0,140	AUTOALWAYS
	2	T	RMS(I(Starter))	700,0,140	AUTOALWAYS
	2	T	I(Starter)	700,0,140	AUTOALWAYS
	3	T	RMS(V(Rotor))	700,0,140	AUTOALWAYS
	3	T	RMS(I(Rotor))	700,0,140	AUTOALWAYS
	4	T	RMS(I(NEONBULB.V1))	375,0,75	AUTOALWAYS
	4	T	I(NEONBULB.V1)	375,0,75	AUTOALWAYS
	5	T	RMS(V(NEONBULB.G1))	700,0,140	AUTOALWAYS
	5	T	V(NEONBULB.G1)	700,0,140	AUTOALWAYS
	6	T	RMS(I(NEONBULB.G1))	700,0,140	AUTOALWAYS
	6	T	I(NEONBULB.G1)	700,0,140	AUTOALWAYS
	7	T	(RMS(V(Stator)+V(Starter)+V(Rotor))) * (RMS(I(Stator)+I(Starter)+I(Rotor)))	700,0,140	AUTOALWAYS
	8	T	(RMS(V(Stator)+V(Starter)+V(Rotor)))/(RMS(I(Stator)+I(Starter)+I(Rotor)))	700,0,140	AUTOALWAYS

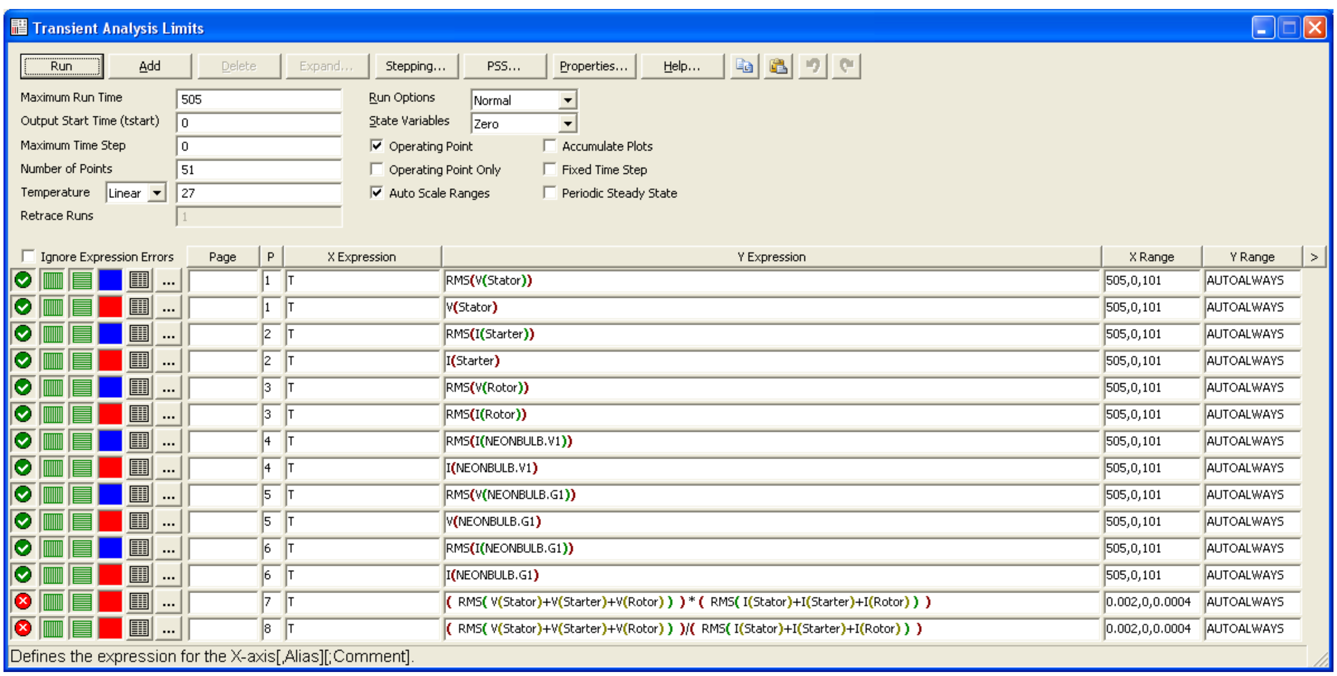
Defines the expression for the Y-axis[,Alias][;Comment]. Click the right mouse button for a variable menu.


RAV4 EV, Shorted Motor, v5F _ ON = 700 sec + 1 femto Volt Sine Input.CIR
180.00K
-120.00K
0.00
140.00
280.00
420.00
560.00
700.00
RMS(V(Stator))
V(Stator) (V)
60.00K
-40.00K
RMS(I(Starter))
I(Starter) (A)
2.00K
0.00K
RMS(V(Rotor))
RMS(I(Rotor))
300.00
-200.00
RMS(V(NEONBULB.G1))
V(NEONBULB.G1) (V)
360.00m
-240.00m
RMS(I(NEONBULB.G1))
I(NEONBULB.G1) (A)
150.00M
0.00M
(RMS(V(Stator)+V(Starter)+V(Rotor))) * (RMS(I(Stator)+I(Starter)+I(Rotor)))
6.00
2.25
(RMS(V(Stator)+V(Starter)+V(Rotor)))/(RMS(I(Stator)+I(Starter)+I(Rotor)))
T (Secs)


C2
10k
Rotor
-24.948K
-40.525K
100u
Starter
ECS »
-103.489K
10u
R1
1.6
Stator
-103.296K
6.7667
C1
10k
NeonBulb
ECS »
Probable Locations
for Emergency
Cut-Off Switches
Parameters
of Neon Bulb
.99
Stator Starter
100 H
.2 %
.6
Stator Rotor
1e30 F
10 ƒ
800n
Starter Rotor
1f V

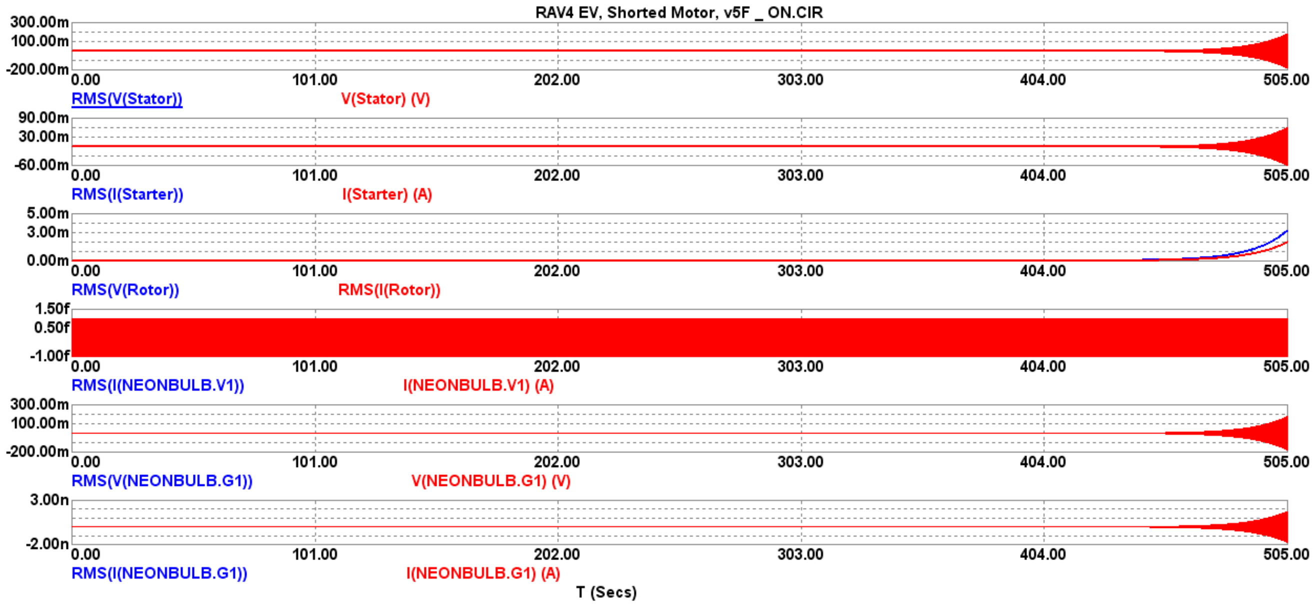


Here's the same setup but simulated for less duration....505 seconds...

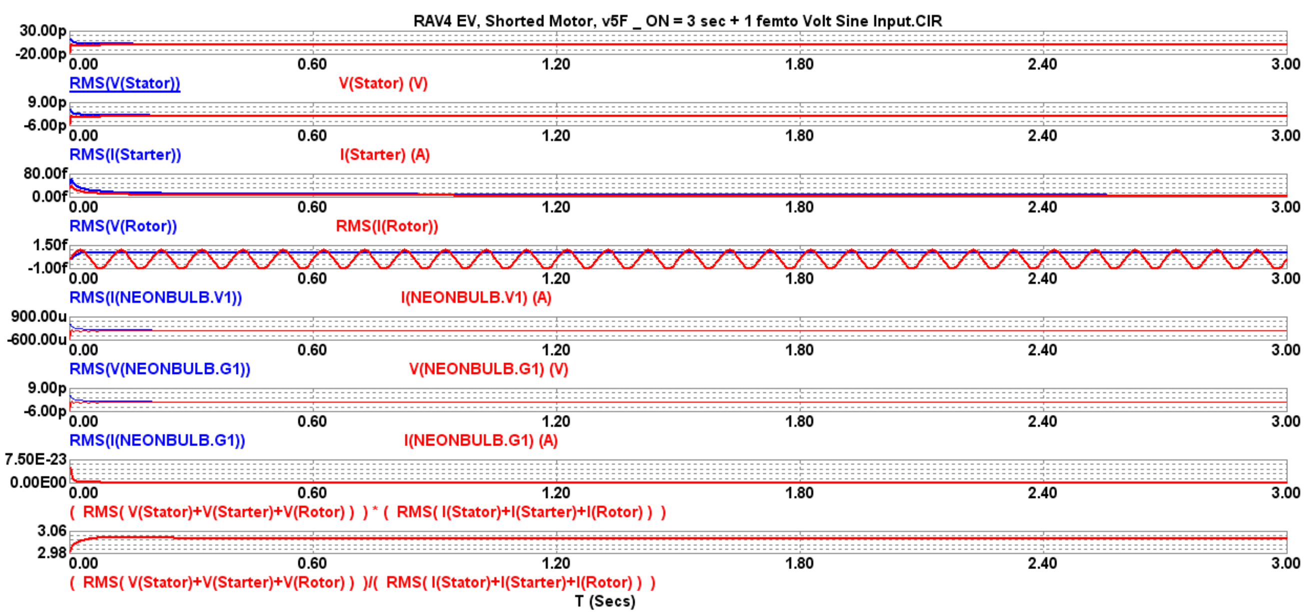


Page	P	X Expression	Y Expression	X Range	Y Range
	1	T	RMS(V(Stator))	505,0,101	AUTOALWAYS
	1	T	V(Stator)	505,0,101	AUTOALWAYS
	2	T	RMS(I(Starter))	505,0,101	AUTOALWAYS
	2	T	I(Starter)	505,0,101	AUTOALWAYS
	3	T	RMS(V(Rotor))	505,0,101	AUTOALWAYS
	3	T	RMS(I(Rotor))	505,0,101	AUTOALWAYS
	4	T	RMS(I(NEONBULB.V1))	505,0,101	AUTOALWAYS
	4	T	I(NEONBULB.V1)	505,0,101	AUTOALWAYS
	5	T	RMS(V(NEONBULB.G1))	505,0,101	AUTOALWAYS
	5	T	V(NEONBULB.G1)	505,0,101	AUTOALWAYS
	6	T	RMS(I(NEONBULB.G1))	505,0,101	AUTOALWAYS
	6	T	I(NEONBULB.G1)	505,0,101	AUTOALWAYS
	7	T	(RMS(V(Stator)+V(Starter)+V(Rotor))) * (RMS(I(Stator)+I(Starter)+I(Rotor)))	0.002,0,0.0004	AUTOALWAYS
	8	T	(RMS(V(Stator)+V(Starter)+V(Rotor)))/(RMS(I(Stator)+I(Starter)+I(Rotor)))	0.002,0,0.0004	AUTOALWAYS

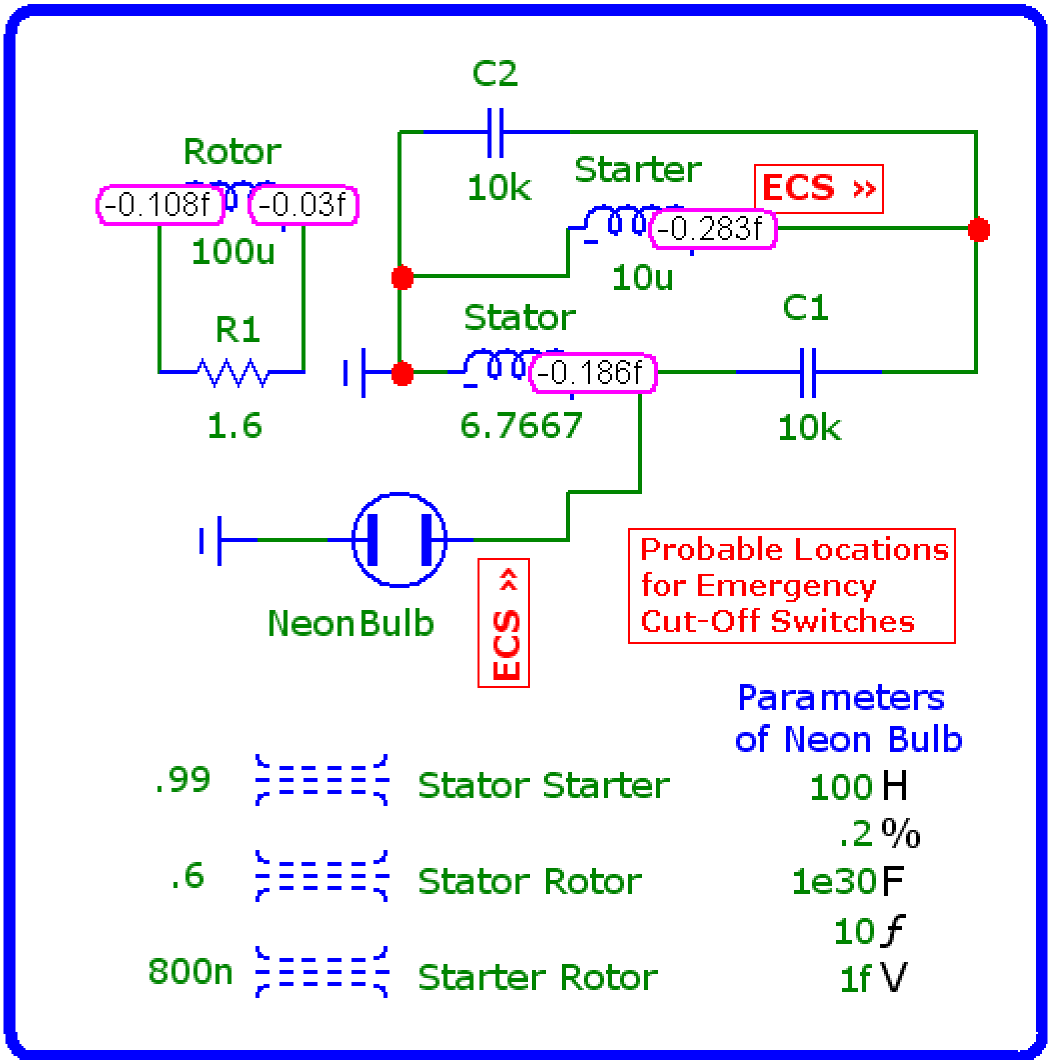
Defines the expression for the X-axis[,Alias][;Comment].



Here is a comparison of two voltage settings for the sine wave, voltage source located inside of Micro-Cap's spark gap macro demonstrating no significant difference in output, nor any significant difference in nodal voltages (tagged onto the schematic), despite the vast difference between a one femto volt versus a one kilo volt input at the sine wave, voltage source showing how wasteful it can be to assume that we have to supply all of the real power necessary to power our appliances instead of supplying them with very little real power and making up the difference with reactive power converted into real power through resistive impedances of various types of one sort or another...

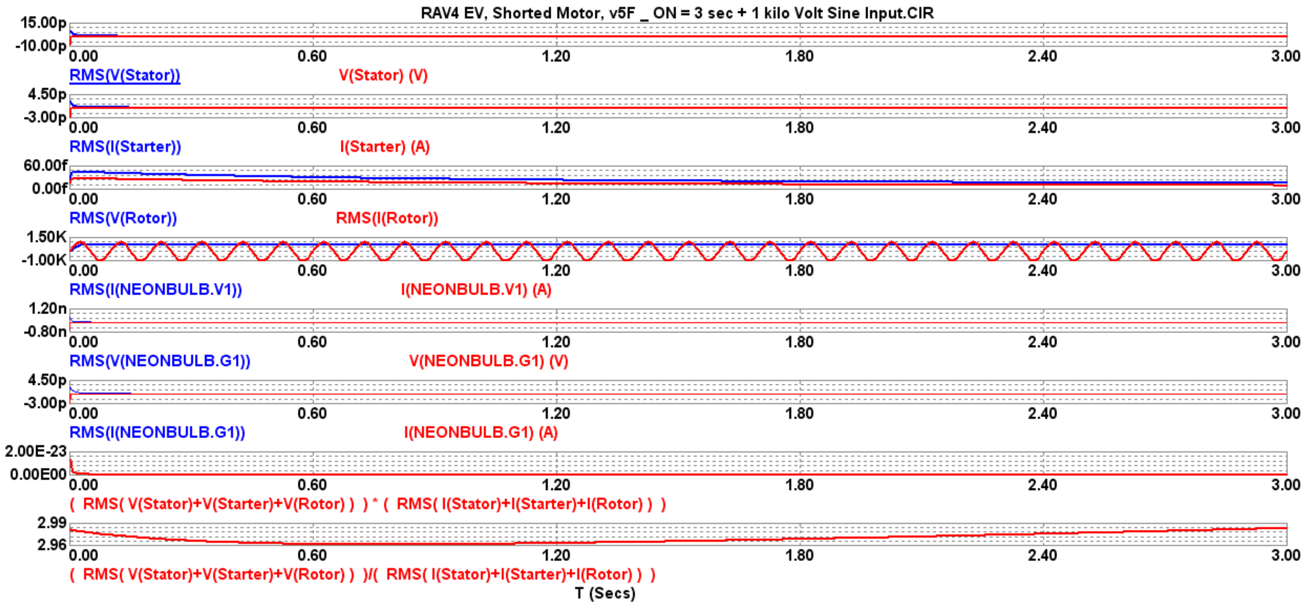


Notice the femto volt nodal voltages in the following image...

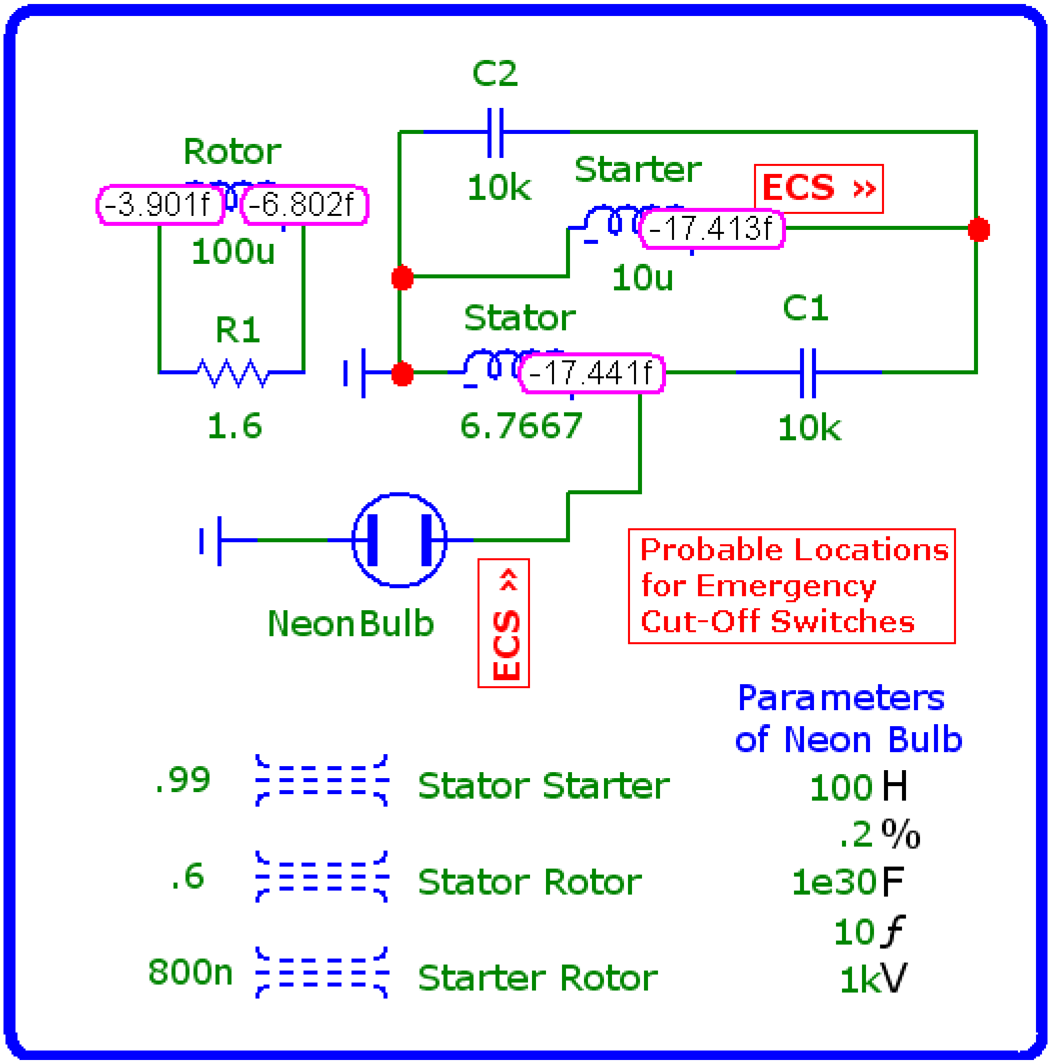


C2
10k
Rotor
-0.108f
-0.03f
100u
Starter
ECS »
-0.283f
10u
R1
1.6
Stator
-0.186f
6.7667
C1
10k
NeonBulb
ECS »
Probable Locations
for Emergency
Cut-Off Switches
Parameters
of Neon Bulb
.99
Stator Starter
100 H
.2 %
.6
Stator Rotor
1e30 F
10 ƒ
800n
Starter Rotor
1f V

Now, for comparison, here is the kilo volt input version...



And its associated nodal voltages on its schematic...



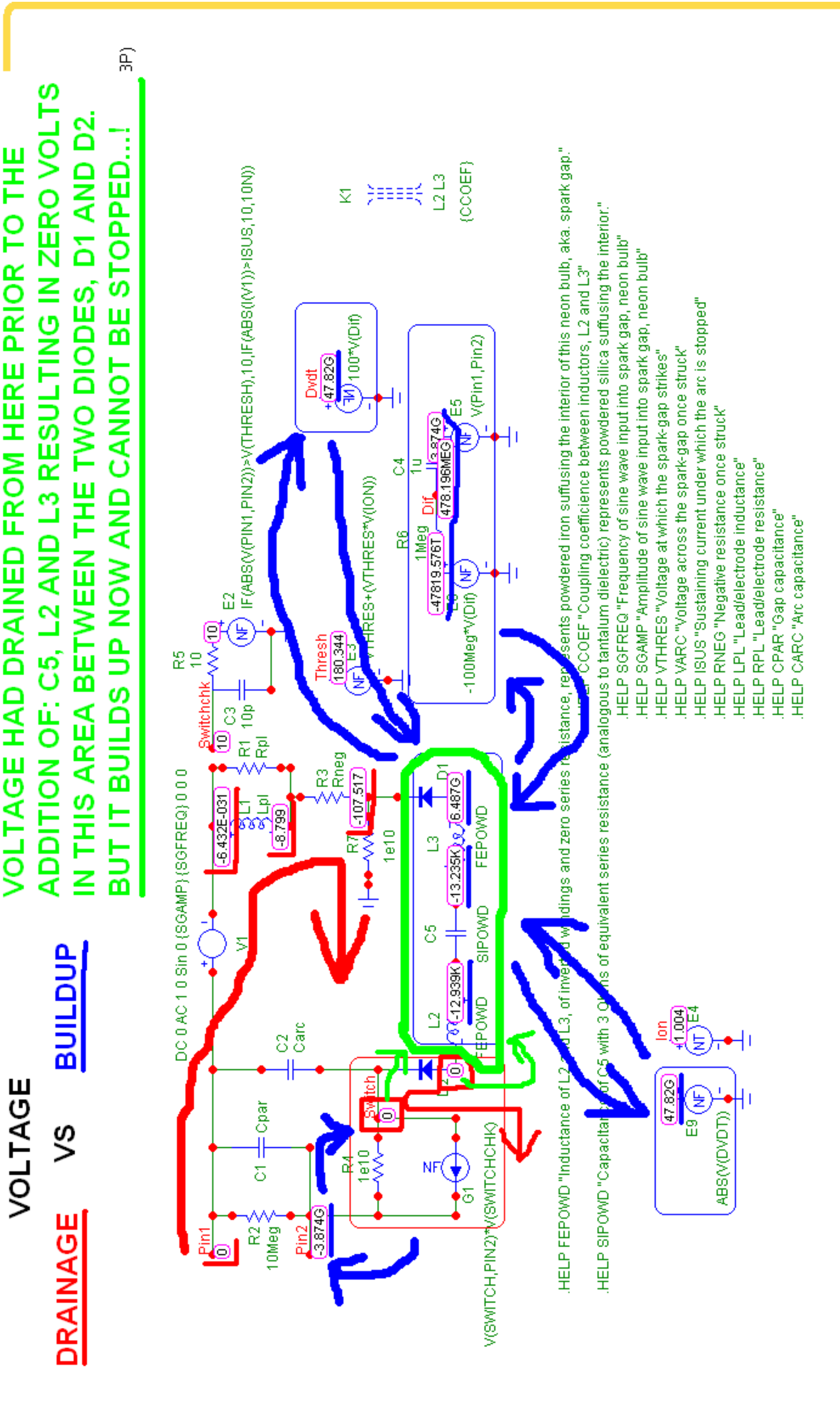
Do you remember when we were little children we were required to get a hall pass to be allowed to walk in the hallway of our elementary school to go to the bathroom, etc.?...

Well...Thermodynamics is that hall pass which allows real power to exit the components of an electrical circuit. Conversely, reactive power suppresses thermodynamics and the expression of real power outside of our circuits. This suppression causes a buildup of reactive power whose salient characteristic is the out-of-phase relation between the current and voltage fragments of electricity. This buildup causes over-heating of said components and shortens their lifespan. So, be forewarned, that overunity circuits may cost you, ultimately, for the wear and tear and maintenance costs which you may, in all likelihood, incur within your circuits.

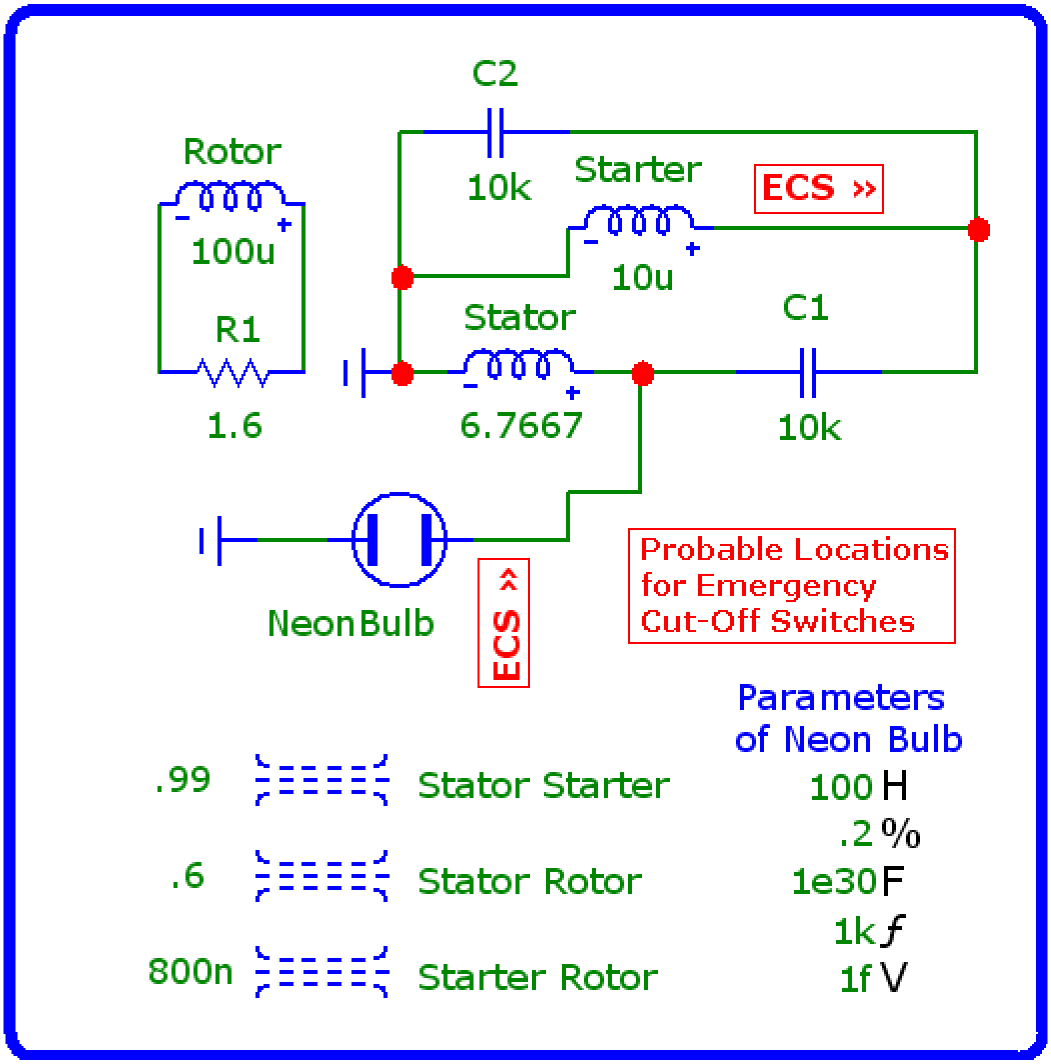
There are four salient features to a spark gap's ability to augment electricity...

1. Its negative resistance (represented within Micro-Cap's spark gap macro by its resistor, R3).
2. The zero voltage source, V1, originally represented by said macro with a zero volt battery.
3. The rapid switching action which produces the intermittent arcing across its electrodes.
4. The current source whose outpouring of current is predicated upon voltage differences inside of Micro-Cap's spark gap macro (represented by component, G1, in the various versions of screenshots depicted throughout this presentation).
5. Add to these previous four features the following four features...the recent addition of a ground adjacent to the negative resistor (depicted in the images immediately, above). This prevents arcing of the spark gap which prevents its explosive tendency for overunity which, as you have probably already noticed, can get out-of-hand! This puts the spark gap into a modality of permanent ionic channel which is well-known (in the meteorological science of weather study) to precede every lightning strike. Thus, whatever voltage the sine wave voltage source (of my inclusion into Micro-Cap's spark gap macro to replace its zero voltage battery) is set to, its voltage and current never exceeds this setting. So, if my setting is for one femto volt, then its emission is a constant one femto volt at one femto ampere, non-stop (ad infinitum). This puts regularity back into a component which Nikola Tesla has qualified by calling the spark gap: a "disruptive discharge" device. This has been a major stumbling block of my simulation self-study in which electrical reactance wants to behave like a wild stallion doing what it does best (explode!) whenever it feels like it and to whatever degree of explosive force without asking anyone's permission. This is not safe and, thus, not user-friendly for our modern-day appliances which prefer a certain predictability coming from their energy source. Thus, I have to comment that this idea of grounding the internals of a spark gap (neon bulb; gas discharge tube; etc) is another graceful gift from God within the field of electrical engineering.
    1. This pre-arcing condition of mild ionization, immediately prior to a lightning strike or the formation of a spark gap's arc, may be analogous to semi-conductance.
    2. This ground drains voltage away from the spark gap's PIN1 helping to maintain it at, or near, zero volts. Meanwhile, PIN2 is accumulating towards infinite amplitude due to the following bullet points: #6 and #7 depicted in the next screenshot, thus, driving up the voltage difference between these two pins to an infinite value.
6. The addition of powdered iron, represented by two invertedly wound inductors within Micro-Cap's spark gap macro, of around 100H's, each (L2 and L3) is another God-send.
    1. Their coupling coefficience of 20%.
7. The capacitor placed in between these two inductors, C5, of 1e30 Farads (representing powdered silica in the real-world) is another boost to the efficacy of spark gap usage.
8. A variable voltage, and variable frequency, sine wave generator.
    1. Its variable frequency allows for the acceleration of electrical reactance which can result from either increasing this input frequency, or by lowering this frequency, depending upon the circumstances which will determine which causation will benefit the desired outcome.
    2. Since the original intention of Micro-Cap's software engineers was for a zero voltage D/C source be placed within their spark gap macro, adhering to that original intention is not difficult since I find that it's the frequency, and not the voltage of this input, which is

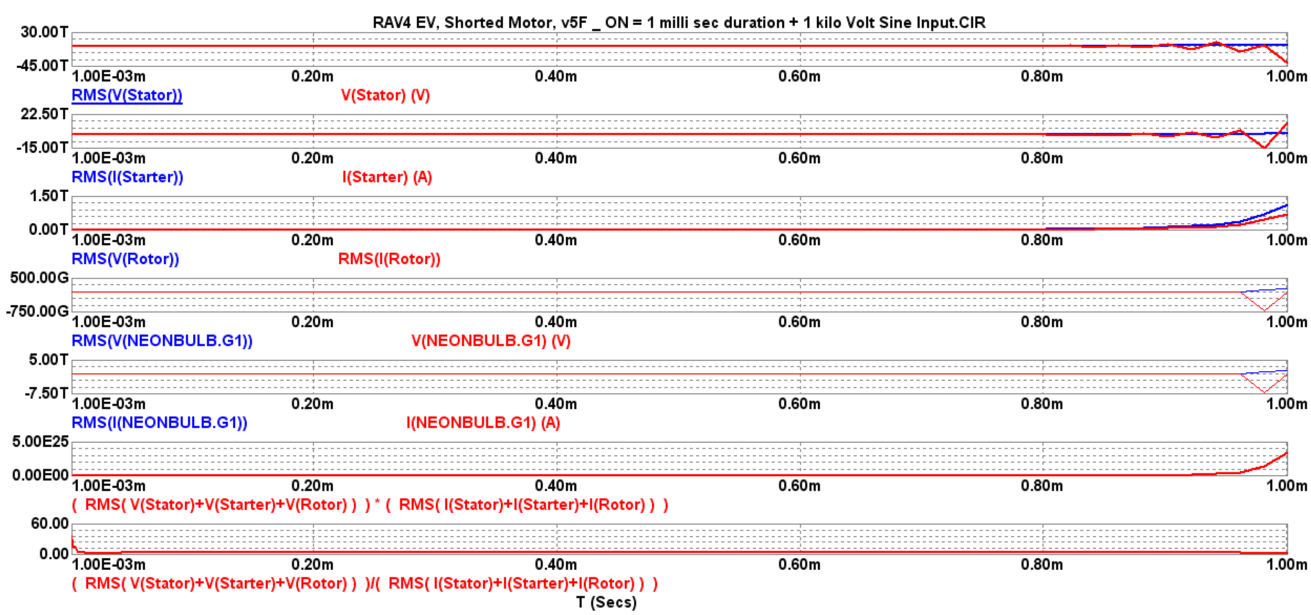
significant. Or, said another way, if – perchance – I should find myself adding *some* voltage, then I find it is best if its amplitude is minimally tiny so as to not interfere with my attempt to nurture electrical reactance into becoming born and raised up into a roaring bonfire of intense activity!



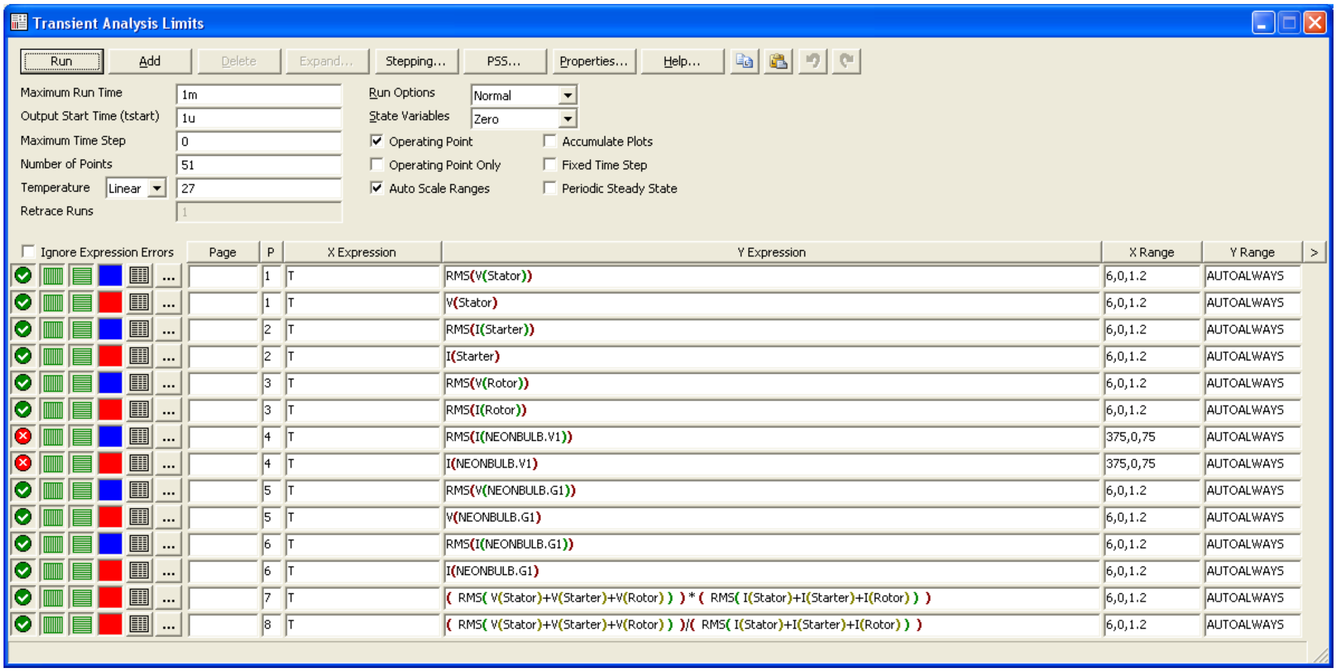
Here's the circuit parameters I used to achieve the nodal voltages on the spark gap, above...



Here is the output...



Here are the oscilloscope parameters...



And the nodal voltages of the circuit...