



## ONE MILLI SECOND TRANSIENT ANALYSIS DURATION

$V(L1) = \text{PEAK } 308.859\text{V} = \text{TROUGH } -308.707\text{V} = 308.783\text{V AVG}$

$218.34\text{V RMS} = \text{square.root.of.two.divided.by.two.times.average-voltage}$

$I(L1)+I(L2)+I(L3) = \text{PEAK } 279.058\text{A} \ \& \ \text{TROUGH } -288.509\text{A} = 409.93\text{A AVG}$

$283.78\text{A RMS} = \text{same as RMS voltage formula}$

316.23 turns ratio between L1 & L2 and between L1 & L3. L1 could be bifilar.

L2 & L3 are two turns –each– of very stout non-insulated wire (similar to the extra pair of wires wrapped around the armature of an A/C induction motor) which would imply L1 having 632.5 turns of very thin voltage wire.

V1 & V2 are 1Meg Hz sinewave generators fed by 1.6V from small (toy) solar panels.

*For the Bifilar version...*

$V(L4) \text{ or } V(L5) = \text{PEAK } 451.7\text{V} = \text{TROUGH } -451.25\text{V} = 451.475\text{V AVG}$

$319.24\text{V RMS} = \text{square.root.of.two.divided.by.two.times.average-voltage}$

$I(L4)+I(L5)+I(L6)+I(L7) = \text{PEAK } 405.1\text{A} \ \& \ \text{TROUGH } -414.76\text{A} = 409.93\text{A AVG}$

$289.86\text{A RMS} = \text{same as RMS voltage formula}$

316.23 turns ratio between L4 & L6 or L5 & L7. L4 & L5 are bifilar.

L6 & L7 are two turns –each– of very stout non-insulated wire (similar to the extra pair of wires wrapped around the armature of an A/C induction motor) which would imply L1 having 632.5 turns of very thin voltage wire.

V3 & V4 are 1Meg Hz sinewave generators fed by 3V from small (toy) solar panels.

So, wrap your mind around the concept presented here, namely: that the source voltage fed to our A/C motors is inverted from what is being suggested here. Instead of feeding 120V of 60 Hz to the voltage coil of a single phase, A/C motor – expecting current (of very low voltage) to develop in the two turns of stout, non-insulated wire (whose purpose was merely intended to get the squirrel cage rotor – positioned in the center of the armature – to rotate rather than merely wiggle back and forth – due to the armature's A/C field being non-deterministic for inducing rotation when we're dealing with single phase). Instead, let us feed low voltage current of very high frequency to these pair of stout, non-insulated double turns of copper wire expecting voltage of low current to become induced within the bifilar voltage coil (wrapped around the bobbin surrounding the armature; especially since these coils are connected to the current coils as per this circuit simulation).

The aeriels may benefit from being hollow spheres (possibly made of bronze) whose interiors are insulated, but whose exteriors are not?