Capacitive Transformer

Based on the considerations that <u>Testatika</u> a high frequency of working <u>electrostatic induction motor</u> / generator is, I have a Tesla transformer with a grid plate surrounded, to show that a transformation of the voltage can be achieved.

Experiment with the Tesla transformer



To <u>CW Tesla transformer</u>, designed by the <u>MW-40W transmitter</u> fed, I have an aluminum grid plate isolated positioned to act as a cylinder with 10cm diameter is bent. On the grid sheet is to an extent a light bulb connected 230V/60W. When tuning to resonance, which here is about 1MHz, it glows very brightly, and shows that a large part of the now in a 40W light bulb is being implemented. Interestingly, the emerging transformation of the voltage. Because the light bulb at the tip of the Tesla transformer is connected, so there is the flowing current is much too small to make them shine, because the voltage level is correspondingly high. About the capacitive collection of all field lines around the Tesla transformer around, if the stress level back down and the current increases. He is virtually synonymous with the flow at the nadir of the secondary coil, so also where a high current flows. The grid plate is useful because it reduces eddy current losses. Although a normal Al-plate cylinder may be used, so that it heats up considerably and the net in the bulb is less. It should be noted further that a fully enclosed cylinder Windungsschluss arises and the usable capacity is also lower. The fact that a very high current in one winding of the cylinder flows, was with the <u>finished model</u> and a halogen lamp shown



Using different light bulbs was recorded load characteristic. These bulbs were used with different benefits. Their brightness was measured with a Lux meter, and then the same lamp with a control transformer at 50Hz at the same brightness asked. The service is implemented by a watt meter. From the current and voltage values at matched load was then the inner resistance of the lamp for the respective working point is calculated. The curve drawn with these values shows that for about 300Ohm the optimal power adaptation is present and up to 42W, so the overall performance (of these stations is <u>self</u> and, therefore,

provides a bit more, not less, as for equipment purchases) to the sender, in the lightbulb implemented.



To show that this is a real transformation, it is a second, identical secondary coil is used. This is compared with the surrounding lattice, and grounded at the nadir at the top of the MW transmitter powered Tesla transformer with high voltage supplies. Also in this case is in the resonance point, a large part of the power transferred to the bulb. That really high voltage is received, can be shown by a thin piece of wire from the connection line can stick out. On this form then known <u>Sprühentladung a CW-Tesla transformers</u>, but this performance is lost and the lamp is not as bright at the grid electrode, it is not possible to ignite a spark, because the voltage is too low. The <u>finished model</u> will be covered with two bulbs of different power shown.

How similar could also use the "capacitors" in the <u>Testatika</u> work. Indeed, when high-frequency high voltage from the disks at the tip of the Tesla transformer is received, can this high voltage without magnetic coupling down to be transformed. This requires, however, that the discs an alternating voltage with the right frequency to create. This is the slow rotation of the wheels but very low. That explains why the coils in the "capacitors" always with tens of thousands windings are described.



Adjusted for the effect on an easily comprehensible circuitry to reduce the principle, rather than the grid 12pF/15kV vacuum capacitor is used. He has roughly the same capacity as the grating against the secondary coil. This is at the forefront of the Tesla transformer is connected, and this is reflected in the voting response transformation in the same way as in the lattice.

This suggests that this structure as a capacitive voltage divider effect, the capacitive reactive current but completely on him by the concerted secondary coil is compensated.



<u>BUT</u>: When installing a second lamp in front of the condenser (here were two vacuum-filled, 80W filament lamp used coal to <u>gas discharges</u> to prevent) shows that the high power even at the tip of the Tesla transformer flows. Here the first lamp glows even brighter, because of additional capacities of more power lines to ground to drain.

This stands in stark contrast to the <u>experiment shown below</u> with the finished model. There is no real transformation, but only a postponement of the working point of the Tesla transformer. So if you think you could at the secondary coil capacitive transformer through a metal tube and replace it as a capacitor to reduce the false lies. So esoteric as it sounds, the secondary coil in the capacitive transformer has a kind of pull factor to the development of a high current prevented.

The finished model



To not always a sheet to the Tesla transformer around the need to establish, this model was built. It contains in the middle a Tesla transformer and the outside sheet metal around the hole, which is not closed, but open to a winding is bent. There are thus two ports from the grid is available. If the voltage between both ends removed, the quasi Sekundärwindung same.

For more options try the nadir of the Tesla transformer is not grounded fix, but an ironing auftrennbar made. This can also be measured Fußpunktstrom.

When construction is necessarily a sufficient Isolierabstand the grid to all other officers to ensure parts. Because the grid is not grounded, it is at a very high potential and it is easy to over-shock. Here was all of 4 spacers mounted and the connections to the primary coil and the nadir of the secondary coil in a wide arc to the bottom led to the grid is not too close.

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Secondary coil:	650 Chasing Playback with 0.26 mm enamelled on 40mm PVC pipe approximately 200mm high Inductance 3.5 mH; Gleichstomwiderstand 270hm Free resonance frequency 1.5 MHz With resonant frequency 1.13 MHz grounded grid	
Grid:	Aluminum perforated metal sheet with 1mm thickness 5x5mm hole size, land width 2.5 mm Bent into a 210mm-high, open cylinder (about 5mm gap) with 105mm diameter	
Primary coil:	18 Chasing Playback with enamelled 0.9 mm to 50mm PVC pipe approx 20mm high Approximately 25µH inductor	

Data from the capacitive transformers

Further experiments with the finished model



The capacitive coupling through the lattice work, of course, a reverse direction and so is also a capacitively excited Tesla transformer feasible. The feeding of the HF is only more of the grid to ground. The internal resistance fits with his 3000hm not quite to the 500hm output generator, but it is at the head of a small spark of about 1cm in length can be seen. If you consider that the generator is not much more than 50V creates, this is also a beautiful testament to the transformation took place. The primary coil is totally unconnected, which is uncharacteristic for a Tesla transformer is!



This experiment shows that the flow at the nadir of the secondary coil with the grid equated. In a grounded grid, the same voltage / power at nadir to nadir as grounded on the grid.



To the already established above transformation continues to investigate were two identical, 80W filament lamp used coal. These are in contrast to conventional light bulbs vakuumgefüllt and prevent a performance loss due to <u>gas discharges</u>. One of them was directly involved in the high-voltage line is activated and the other at the nadir of the capacitive transformer is connected, which according to the previous experiment with the connection to the grid is identical. The grid is directly grounded to capacitive Coupling of the first Tesla transformer be avoided. Clearly that the power line only a very small current flows, the lamp will not light, so although the performance on this line will be transferred and the lamp on the output supplies. It is only through a genuine transformation of the stress away.



These low flows in the power line flows, can also be transmitted wirelessly. When high frequency is always a capacitive coupling in question and so this experiment is working. At both secondary coils, a toroidal surface with a large mounted. The coils were in small distance from each other, placed so that a capacitive coupling between the two surfaces occurs. It turns out that even so a large part of the transmission power can be transferred. This experiment is interesting for the discussion at the <u>Testatika</u>, with the capacitive coupling with the non-customers (lt Methernitha "button") can be compared.



Here, the magnetic transition with the help of one winding of the sheet metal demonstrated. There was a 12V/40W-Halogenlampe between the ends of the plate attached. After resonance vote they are very

bright lights and sets for almost all transmitting to 40W. It can see how much electricity will be transformed. In this case, flow over 4A HF (!) On the grid.



This can be further enhanced if you have a 0.2 mm thick wire between the output terminals mounted. This begins to glow and he can only with 8A, like a trial with DC showed. If the grid is not connected with earth, there is also still on the high voltage wire to earth. This leads to the familiar <u>Sprühentladungen</u> at Tesla transformer. This only occurs, if the wire already glows, because then the ionized air induced by the heat.

Important in these experiments is that the connection to the grid with wires as short as possible is done. Because they are too long, it is by its maximum current of the inductor is very limited. Even when connected to the halogen lamp can be reduced to a strong light, if the connections just a few cm long.

Interesting in the magnetic coupling is similar to that following removal of the secondary coil of the Tesla transformer, only with the primary coil in the interior of the grid is not working. Then there is no resonance point more and it barely flows in electricity grids. The Tesla transformer is making in this case also a significant contribution to the transformation.

The capacitive transformer is the use of capacity and inductance in direct, interactive manner with each other. A plate capacitor is determined by the surface of the inductor formed. This is so to speak, the electric and magnetic force in the same room together and it could be a gateway to the free energy appear.

