UR4III said: ↑

Difficult question, since only the duration of the impulse is given and its shape is absent. Any form can be decomposed into a family of harmonic functions and dance from them. I have never done this. Therefore, a simplified answer. Suppose the impulse is symmetric. Eds in the secondary housing is behind the primary current. When the current value does not change, there is no induced emf. When the current changes rapidly, the emf is maximum. Therefore, when the magnitude of the current in the pulse reaches its maximum. Eds will be zero. Those. the graph of the current change in the primary will be ahead of the current of the secondary for 5 seconds. A half period is 10 seconds.

It is quite obvious that your reasoning suffers from formalism. With such a slow change in current and voltage, the current will not practically experience the reactance, and therefore will coincide with the voltage in phase, as at a constant current. From here there will be no phase shifts, or if they are, they are very minimal.

AAbramovich, January 19, 2016

UR4III said: ↑

Difficult question, since only the duration of the impulse is given and its shape is absent. Any form can be decomposed into a family of harmonic functions and dance from them. I have never done this.

And I have to do it often. There is nothing difficult here.
The square pulse is the sum of the odd harmonics.
I look at the E4402V spectrum analyzer up to 3 GHz, I see Odd harmonics, and up to the 11th amplitude decreases by only (2-4) dB for each next one.
Even numbers are attenuated by 30-70dB. There are practically none.

Then there is nothing to declare:
UR4III said: ↑

Well, it's simple. We give a single impulse to the primary. He will “return” to the primary through the “half period”, i.e. in the third quarter. How not to fake

So all this has no power. According to the rule "by contradiction" ...

Wlad, January 19, 2016
42

Parametric resonance and CE devices

This topic is directly related to asymmetric transformers and inductances. Tracing from her, we give here below.

http://zaryad.com/forum/index.php?threads/Parametric- resonance-CE devices.8984/

Parametric resonance

- What is parametric resonance?
- This is when in the oscillating circuit by changing the parameters - values of capacitance and inductance can be obtained an increase in the amplitude of oscillations and energy. That is free energy.

- Where does this increase in fluctuations come from?
- Suppose that in our LC circuit there is no active resistance. Then the oscillations will last forever without fading. But not increasing in amplitude. Since in odd clock cycles the coil will work as a reactance, and in even even the opposite as a power generator. Thus, the resulting increase in energy is zero.

But if in odd cycles, when the capacitor energy costs go down, to reduce the inductance of the coil, and in even-numbered ones, we get that the resistance to discharging the capacitor will be less than the work to charge the capacitor. As a result, after charging the capacitor, we will get more energy on it than it was at the beginning. This is parametric resonance.

- At the expense of what energy is added?
- Energy is added due to the fact that the space-time symmetry of the action of the inductance field changes when its induction parameters change in different cycles. There are 2 periods and 4 cycles in the oscillation period.

Initially, the field was symmetrical in time, and its total work was zero. This was, so to speak, a potential field manifested in time. Since the work of the potential field in the cycle is zero. At the same time, this potential field consisted of two non-potential fields of the Ampere-Lorentz forces, operating in odd and even cycles, respectively. Since two non-potential induction fields, which are opposite to the sign of work in each cycle, add up as a result in time they form a potential field. Which makes vibrations.

In this field, we do not get free energy. Since it is symmetrical. To get extra energy, we need to make this field asymmetric. That is, the sum of two non-potential fields should give a non-potential field, with a positive total work. For this you need to reduce energy costs in odd cycles.

- How to achieve this?
- This can be achieved by controlling the parameters of inductance and capacitance in the cycles of the circuit. Since it depends on the magnitude of the resistance. For example, it is possible to lower the inductance of a coil in cycles, where the back-emf works (1-1 and 3rd cycle) and increase it in those cycles, where the EMF of the coil performs useful work and charges the capacitor (2nd and 4th cycle) .

When we reduced the work of energy consumption on a capacitor due to parametric control of reactance, we created an asymmetry of the operation of two non-potential fields, resulting in the formation of a time-effective total of the cycles in the period of the non-potential field, which does additional work, creating additional free energy in the parametric resonance system.

Thus, a parametric resonance device is a free energy device. Naturally, only if the energy spent on changing the parameters of capacitance and inductance in a parametric resonance is less than it is generated at the parametric resonance itself. But as experience shows, the possibility of changing inductance values (and it is possible that capacitances exist) exist, and can occur without significant energy expenditure.

An example of the work of parametric resonance in trifilar winding

- Is it possible to give examples?
- Examples of such parametric regulation is a trifilar winding consisting of three windings, two of which are connected bifilarly and in odd cycles reduce inductance, as a parameter. While in 2 and 4 clock cycles, one of the bifilar windings acting in antiphase is turned off, and the remaining windings, while maintaining the current, have an inductance greater than the full trifilar winding. This creates an increase in power and energy in 2 and 4 cycles and allows you to recharge the capacity in the LC circuit with such a controlled winding to more energy than it had at the beginning. Naturally, there will be energy costs for key management in the microchip. But these costs can be significantly lower than the energy obtained by changing the parameters of the inductance.

And where does it apply?
- For example, in the CE generator, the Kulabukhov-Karnaukhov part of the CE energy is obtained by using a bifilar-triflyar winding to obtain parametric resonance in the LC circuit in order to release additional energy and power. But there are other sources of CE energy in this device.

- What kind?
- In essence, these are other forms of parametric resonances of interaction between primary and secondary circuits.

For example, if we supply a sinusoidal voltage in the LC circuit with a rectangular generator pulse from an inductor, then this pulse will turn into 2 EMF pulses on the secondary winding, corresponding to the slope of the current-forming pulse on the primary winding.

If we look at the directions of the emf of these pulses, then they will maintain oscillations in the LC circuit, since they are directed in resonance with it. The first EMF pulse will occur at the end of an odd clock cycle, and will amplify the current on the coil, as if the discharging capacitor received an additional charge. The second pulse will occur at the beginning of the even clock cycle, and will strengthen the charging of the capacitor. In this way amplification of the oscillation amplitude in the secondary winding will occur.

While the effect of this oscillation from the point of view of counter-emf on the first circuit will not be symmetrical.

Firstly, because the rate of change of pulses in the secondary winding is less than in the primary winding, as a result of which the magnetic flux and its change create a counter-emf.

Secondly, since this change is due to a change in current in the secondary winding, and it lags behind in time for 1 clock, the response counter-emf will fall on the primary winding when the pulse is not there and the primary winding is temporarily disabled. That is, between pulses.

Thus, changing the electrical circuit parameters allows us to achieve asymmetry in the operation of this kind of transformer, similar to the asymmetry in parametric resonance, where we controlled the capacitance and inductance parameters to reduce costs and create asymmetry in the field. Here we also create asymmetry in the field, but in a different way.

This scheme of pumping the secondary winding by pulses from the primary winding without creating counter-emf on the primary winding is also one of the main schemes of using parametric resonance for obtaining free energy, used in the CE generator Karnaukhova-Kulabukhov. But in this case, it is not the parameters of capacitance and inductance on the secondary circuit that are changing, but the parameters of the space-time action of the EMF and counter-emf on the primary and secondary circuits, which turn the potential interaction between them which does not give energy into non-potential interaction, which creates additional energy on secondary circuit. Since the energy consumption in the primary circuit is reduced, due to the absence of counter-emf on it.

AAbramovich, January 21, 2016

Getting free heat energy on the transformer

The author of the video says about obtaining additional heat energy on the transformer.

https://youtu.be/Iwam01bjy2A

He has a normal winding on the primary winding, and on the secondary winding he has one turn of the copper tube, and short-circuits it. When the transformer is turned on, the tube instantly heats up due to the very high current in the short-circuited conductor, almost to the melting temperature.

If water is passed through the tube, the water will also heat up, as in a gas column.

The reason for such a rapid heating is the high current generated in the short-circuited winding not by the potential electric field, which accelerates the electrons along the winding, and they already transfer their energy to the atoms. The electric field thus created does a great job of generating heat.

While on the input winding of the transformer using a diode only one cycle is used, as a result of which the secondary winding returns a useful emf in the second cycle.

A capacitor is also included in the primary winding, which allows the primary winding to be at idle, by compensating for a portion of the reactances of the primary winding.

In principle, the amount of energy released can be calculated by using an instrument showing the speed and temperature of heating (approximately 1-2 seconds), and the overall dimensions and heat capacity of the secondary winding.

But even so, it is obvious that the longer the tube after the secondary winding is, for an acceptable short-circuit resistance value, the more energy will be generated in the tube mass due to the work of the Amp-Lorentz forces in the short-circuited tube and the non-potential electric field created by them.

You can watch this video.

The author assumes that his device can be used in engineering for the generation of thermal energy from electrical power with an efficiency of> 1.

Last Edit: January 21, 2016
AAbramovich, January 21, 2016

The role of pulses in the generator

For example, if we apply a rectangular generator pulse from an inductor to a sinusoidal voltage in the LC circuit, this pulse will turn into 2 EMF pulses on the secondary winding, corresponding to the slope of the current-forming pulse on the primary winding.

This video, perhaps it is from Kulabukhov himself, confirms the words spoken.

https://youtu.be/XkhR0p_x3cE

If we look at the directions of the emf of these pulses, then they will maintain oscillations in the LC circuit, since they are directed in resonance with it. The first EMF pulse will occur at the end of an odd clock cycle, and will amplify the current on the coil, as if the discharging capacitor received an additional charge. The second pulse will occur at the beginning of the even clock cycle, and will strengthen the charging of the capacitor. In this way amplification of the oscillation amplitude in the secondary winding will occur.

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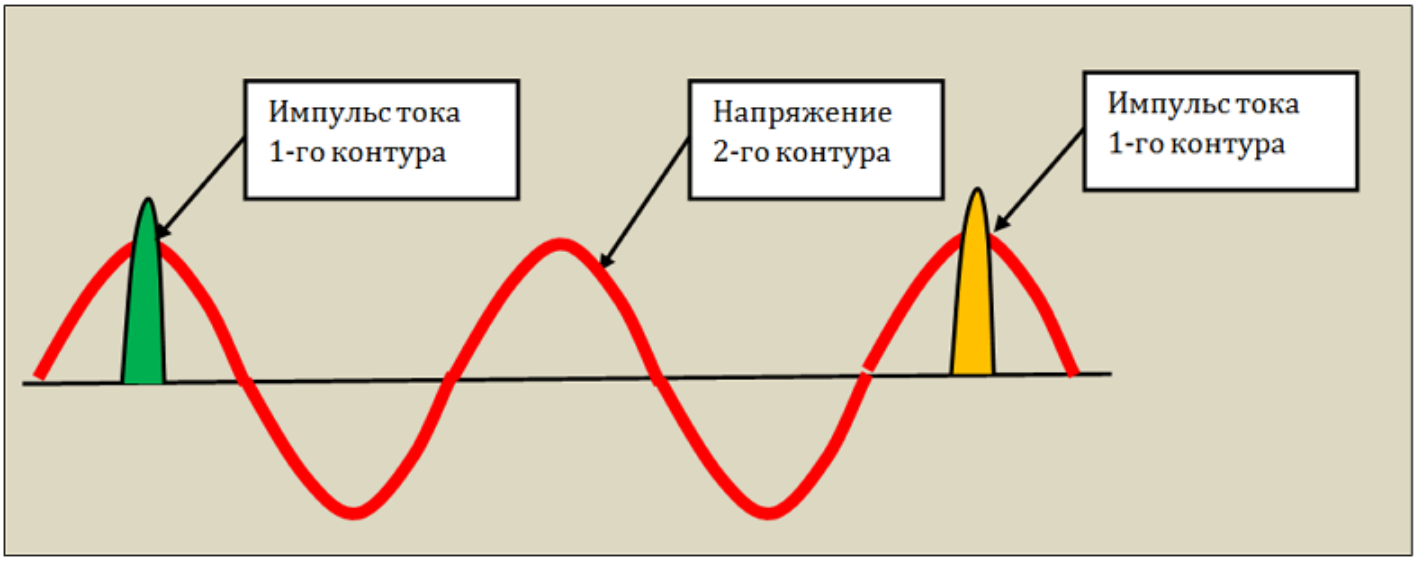


ig. 1. The approximate nature of the current pulses on the primary and the voltage on the secondary winding.

This is the schedule for controlling the voltage in the secondary circuit and is considered in this video as an additional source of generator energy.

AAbramovich, January 21, 2016

Wlad said: ↑

So all this has no power. According to the rule "by contradiction" ...

This has worked in electrical and radio engineering for almost 100 years.

UR4III, January 22, 2016

AAbramovich said: ↑

Suppose that we do not have active resistance in the LC circuit. Then the oscillations will last forever without fading.

Dear Alexander!
I'm still drawn to find out how old you are? What you set forth, you set forth with youthful enthusiasm and the absence of some basic knowledge of the subject.
About myself. My education is far from TOE, but since school time I have a hobby - I am a radio amateur. Now closer to the body.

The primary winding of the trance is inductance. Its resistance is complex: the active part + reactive. The power transmitted by the trance in the secondary is due to the amount of current flowing through the active part of the resistance. In order to increase the current, in the power supply circuit of the primary, CONSTANTLY the capacitance is switched on, the value of which is selected so that its reactance is equal to the reactance of the inductance. Thus, a voltage resonance occurs in the primary circuit. Those. voltage on inductance and capacitance compensate each other and the source voltage is applied to the primary resistance of the primary, resulting in a current in the winding has a maximum value. In this case, the inductance and capacitance do not exchange the stored energy.

If the capacitance is connected in parallel to the inductance, and the source of emf is connected to the points of their connection, then we have a parallel circuit, the resistance of which is at the resonant frequency for the source. Such circuits take place, but not in the case of energy transfer in tranches.

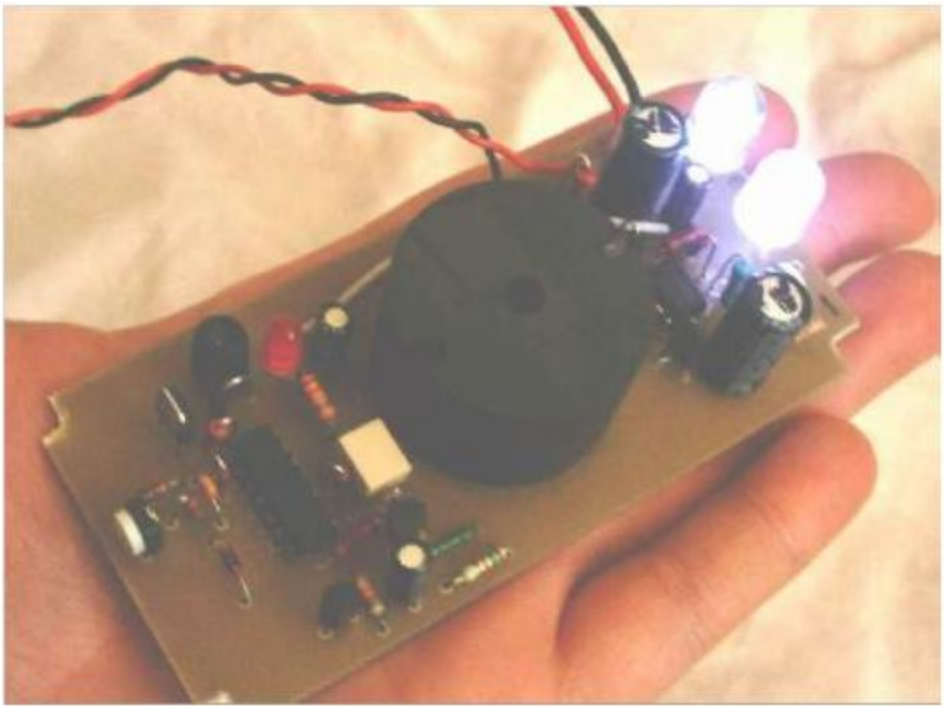
UR4III, January 22, 2016

AAbramovich said: ↑

While on the input winding of the transformer using a diode, only one cycle is used, as a result of which the secondary winding returns a useful emf in the second cycle.

Yeah! Ukry - the most inventive people!
Useful for self-education.
https://ru.wikipedia.org/wiki/Resonants_tokov

UR4III, January 22, 2016



The heart of this CE generator is a special variable inductance coil. The inductance varies due to the on and off of one part of the winding of the trifilar coil. In a sense, it can be considered a special-design transformer, although it does not contain the primary and secondary circuits in the classical sense. Since the inductance is less in ticks when the capacitor in the oscillating circuit is discharged to the coil, and more in ticks when it is charged by the coil, it turns out that the energy cost to pay off the coil back-emf when the capacitor is discharged is less than the generation of energy when charging the capacitor, when the coil creates a useful emf. In this connection, the generation of additional energy occurs in the device, which is used to operate the payload. That is a light bulb. All other parts of the device are only an inverter (equivalent energy converter - voltage, current and frequency) and a controller that ensures the coordinated operation of this circuit.

Electromagnetic CE Generator
with trifilar coil

Details along with the calculations in the article
Link to the file "Electromagnetic CE Generator - Example.pdf"
https://cloud.mail.ru/public/D5ho/jrGZNCqcS

Below, I specifically publish one of the circuits of really working transgenerators based on inductance control in a triflyar-bifilar coil. At one time I had the opportunity to hold this device in my hands and study its work. After charging the capacitor by the touch of a Krone battery, the storage capacitor is charged. After that, the lights on the device continue to glow, no matter how much you exploit it, even for weeks. But if you turn off the contact with the button, breaking the circuit, then after that you will not start it again without a battery, as the capacitor drops the charge.

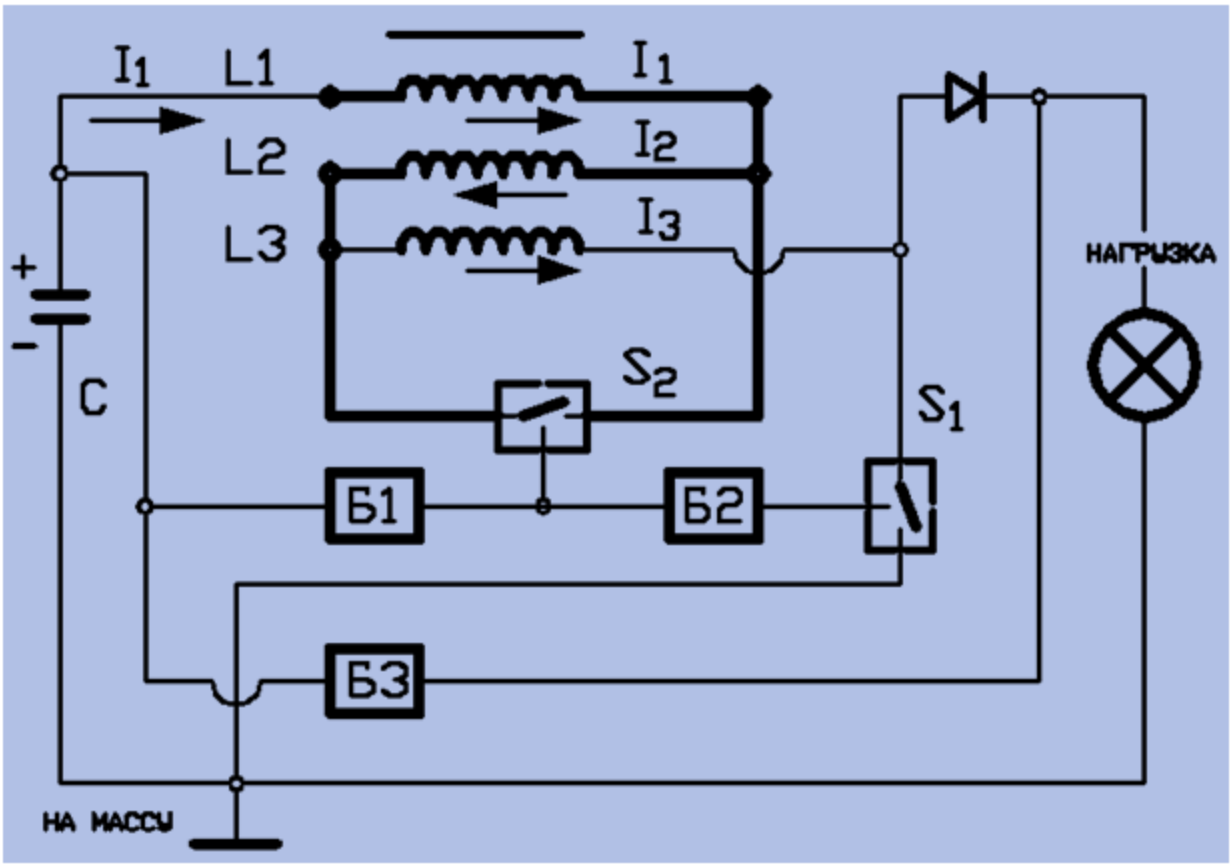


Fig. 1. The generator circuit. B1 - control, B2 - inverter, B3 - feedback circuit.

Generator description

The device is an electromagnetic CE generator of transformer type, without mechanical moving parts. The main element of the generator is a coil with 3 windings. On this coil, additional energy is obtained due to the control of the inductance of the coil in the induction phases using a variable trifilar-bifilar winding.

All three coil windings are equal and wound on the core. Two windings are wound in one direction - in phase, and the third in antiphase. With the passage of current through the coil windings, 3 magnetic fluxes occur - 2 co-directional, and 1 opposite direction. As a result, the total total magnetic flux of all windings of the coil is equal to the flux of one winding (since the fluxes of all windings are equal in magnitude - the windings are the same). We assume that all 3 windings have an equal number of turns and have equal inductance L1 = L2 = L3 = L.

Accordingly, the magnetic fluxes in the coil windings are equal to F1 = F2 = F3 = F.

The generator starts operation at the moment of discharge of the capacitor C (charged from an external source and held in the charged state with an electronic key). In the future (when the capacitor and coils work), the energy is obtained due to the difference in the work of the triflyar-bifilar coil in even and odd induction cycles.

When a capacitor is discharged, the inductance is reduced by compensating for the bifilar winding fields. As a result, the energy costs of creating the field are reduced. When charging a capacitor, one of the parts of the trifilar winding is disconnected, and the other two work sequentially in one direction, increasing the inductance and EMF when charging the capacitor and supplying the light bulb with additional energy.

Such a sequence of operation of the windings also allows the recharging of the capacitor, which is the source of the impulse to the winding, to be fully recharged.

In general, the inductance control system in the phases of operation of the coil is nothing but a form of parametric resonance, carried out when controlling the parameters of the inductance of the coil.

Link to the file "Electromagnetic CE Generator - Example.pdf"
https://cloud.mail.ru/public/D5ho/jrGZNCqcS

It also contains general theoretical calculations of the generator.

AAbramovich, January 29, 2016
49

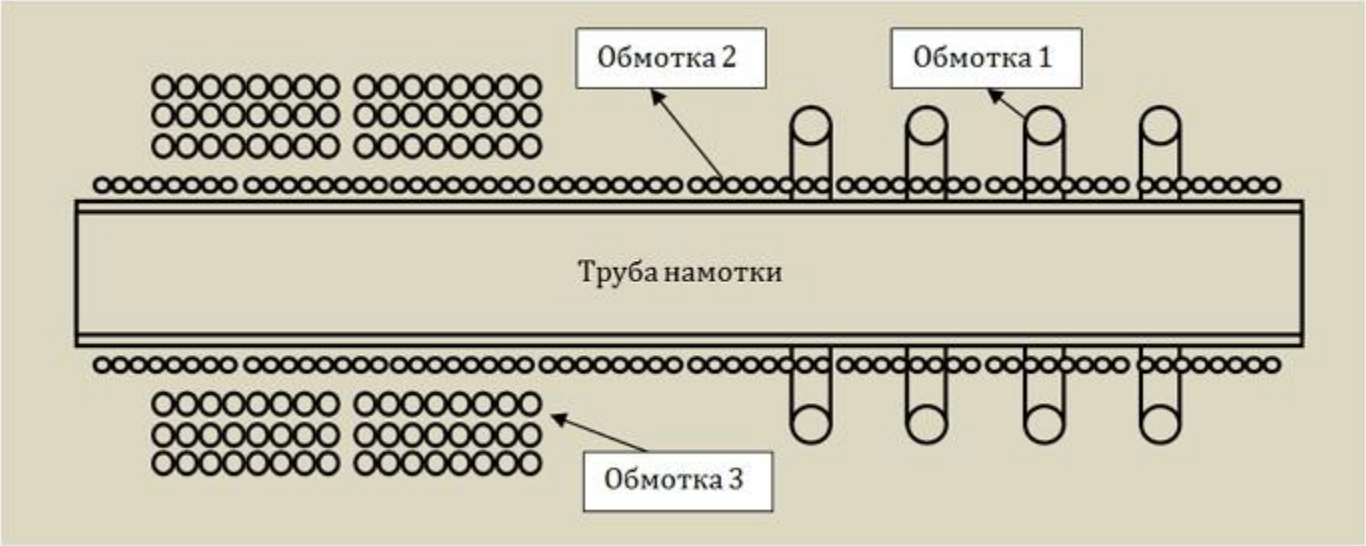


Fig.1. Bifilar winding of the "Granata" type, used in the Karanaukhov-Kulabukhov generator as a secondary winding of an asymmetrically acting transformer.

Some explanations about the work of a bifilar winding of the "Granat" type in the Karnaukhov-Kulabukhov generator circuits. Link to the file “Work of bifilar windings of the type of granite.pdf”
cloud.mail.ru/public/7yCX/675FzRd1r

Bifilar windings in the Karnaukhov-Kulabukhov scheme

Bifilar windings have zero total magnetic flux, and they are used in the secondary circuits of transformers to reduce their induction to primary circuits. But in the Karnaukhov-Kulabukhov scheme, these windings are not ordinary, but asymmetrical, with a configuration in the form of a “grenade”. Because of this, induction of the primary circuit of the transformer and induction of voltage and current in it and the whole bifilar winding acts on that part of the winding, which is the "grenade handle". But the total magnetic flux of the “grenade handle” and “grenade body” in the region of the primary circuit is zero. Because of this, it does not induce counter-emf from the secondary circuit.

Since the proportions of the direct and inverse parts of the bifilar winding are wound in such a way as to compensate for the magnetic fluxes of the parts of the bifilar winding in the region of the primary circuit. At the same time, since the “grenade handle” is closer to the primary circuit than the “grenade body”, the induction of the primary circuit onto the “grenade body” winding is weakened. And therefore, there arises in the bifilar winding the voltage difference between the EMF in the "grenade handle" and the opposite in direction, but smaller in size EMF "body grenades".

In various versions of the Karnaukhov-Kulabukhov transgenerator circuit, another technique can be used when the lengths of the windings in the bifilar coil are unequal, and thus the voltage and current from the inductor is induced in it. But after current induction, a part of the bifilar winding that creates the opposite magnetic field is turned off, and thus the self-induction of the winding is accomplished by adding to the asymmetric part of the winding, as well as the even part of the bifilar winding. In this connection, in the field of self-induction of such a secondary winding, the current is maintained, and the voltage increases significantly, as well as the power. But in this case the bifilar winding should be controlled by the keys and the controller.

AAbramovich, March 10, 2016

"Bifilar windings have zero total magnetic flux"
I certainly apologize, but how do you know this?

Bastinda, March 10, 2016

AAbramovich said: ↑

Some explanations about the work of a bifilar winding of the "Granat" type in the Karnaukhov-Kulabukhov generator circuits. Link to the file “Work of bifilar windings of the type of granite.pdf”
cloud.mail.ru/public/7yCX/675FzRd1r

Your message is very timely.
Participants of the practical topic frankly stalled. We need to prepare them additional information.

AAbramovich said: ↑

Since the inductive resistance of the bifilar winding is zeroed, due to the equality of its flow to zero. And if this winding goes to the rectifier through a transformer whose primary circuit has inductance, then the capacitor capacitance must be built into the secondary bifilar circuit so that the secondary winding is a high-quality oscillating circuit.

1. Coil - "pomegranate", of course the most important.
2. Everywhere there are constructive and mounting tanks. In this case, the quality factor is really high. Capacity depends on the specific winding, and it is all different.
3. Fulfillment of this condition makes sense at a specific frequency. It would be useful to develop your materials in this direction. Given that the frequencies are full of bacchanalia, for clarity, you can stop at one frequency and write an example, say, at 20 kHz. Sample participants will be interested.

* diagrams show different frequencies: 17-27-37kHz; 35kHz4 20kHz; 17-37kHz; 1-2 kHz, etc. Although this

is not a fact. *

4. It seems that frequency ratios are also important.

5. Participants wind coils - "grenades" with different wires, different turns. The coils change their resonance parameters stepwise (they do not have a SMOOTH adjustment) and it is not possible to tune in exactly. It would be nice to indicate to them the points of connection of smooth adjustments

6. Almost no devices, no one has a spectrum analyzer, and an oscilloscope is just a meter.

7. I made a 10-30kHz wave meter to measure the fine tuning of EVERY coil, prepare a description and post it here.

8. The sequence of tuning the resonant frequencies, I think, would help.

Last Edit: March 10, 2016
V__C, March 10, 2016

Bastinda said: ↑

> "Bifilar windings have zero total magnetic flux"
> I certainly apologize, but how do you know this?

This is by definition.

Two identical windings, connected in opposite, compensate each other and their total inductance becomes VERY small. Almost zero. This is an example of a bifilar coil.

Magnetic flux is not a property of a coil.

We are talking about the impact on the magnetic flux bifilar coil

V__C, March 11, 2016
53

To the question of asymmetric transformers: article

The theory, of course, is lame and mnogabukv, but there are some results of measurements.

Evilimp, March 11, 2016
54
viknel and 7b63am like this.

evilimp said: ↑

> On the question of asymmetric transformers: article.

The article is large - 55 pages, sluggish presentation,

Page 35: “The second type of one-sided inductive coupling is not considered due to the fact that these devices are not sufficiently tested for description. And if more precisely, attempts to create them have so far resulted only in the appearance of devices with well-defined inductive coupling asymmetry.”

And this is about asymmetric tansformators - everything!

Therefore, the article has nothing to do with asymmetric transformers.

Correspondingly, to the topic, too.

An author like "the Swiss physicist Colladon" wanders around and around. see page 7.

Last Edit: March 11, 2016
V__C, March 11, 2016
55

Regarding the article
THE DEMON OF TESLA - THE BASIS OF THE SAFE-POWER ENERGY OF THE XXI CENTURY

Speaking of non-fuel systems. This is not a correct concept. Fuel is the ability of the field to do the work. That is, it is a potential energy or potential enclosed in a field. For non-potential fields, the potential of one cycle is not zero, and for an infinite number of cycles, it is infinite. Therefore, a non-potential field has infinite potential energy, that is, an infinite supply of fuel. And the system created on its basis is actually fuel. While the potential field has zero potential in the cycle. But inside a cycle it can have finite reserves of potential or energy if the body is in the field of a potential difference. The systems created on the basis of these reserves are also fuel. But they are traditional. And systems based on infinite energy of not potential field are also fuel, but do not require external sources of potential and potential energy. That makes all the difference. Both those and other fuel systems. Therefore, the name is not a fuel system is fundamentally wrong. And says about the lack of understanding of the merits. These thoughts arose while reading an article on non-fuel systems.

AAbramovich, March 11, 2016

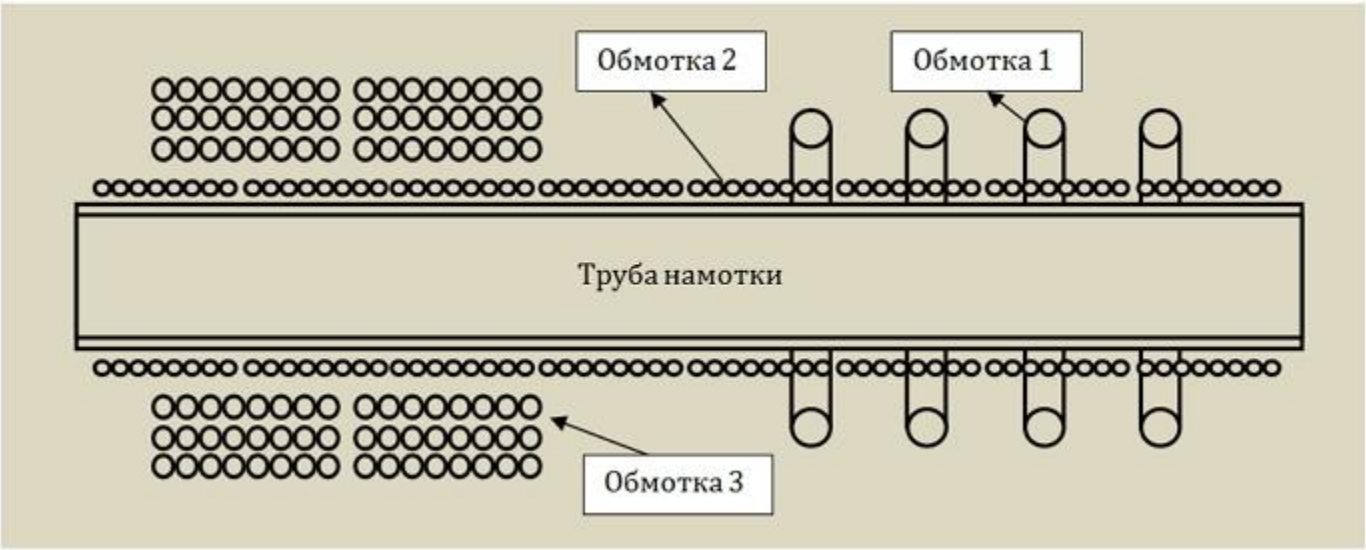


Fig.1. Bifilar winding of the "Granata" type, used in the Karnaukhov-Kulabukhov generator as a secondary winding of an asymmetrically acting transformer.

Link to the file “Work of bifilar windings of the type of granite.pdf”
https://cloud.mail.ru/public/7yCX/675FzRd1r

Based on the principles of compensation of the magnetic flux in a transformer with a secondary bifilar winding of the "Granata" type, the induction of the secondary circuit of the transformer to the primary one is eliminated. Whereas the induction of the primary circuit to the secondary circuit is retained. What makes this transformer a superunit transformer, that is, a transgenerator operating without counter-emf.

In the Karnaukhova-Kulabukhova scheme, this transformer operates at high frequencies, and therefore has no core.

Transformer "Pomegranate" with core

But when considering the principle of a transformer circuit, the idea arises of using it at lower frequencies with cores made of ferrite, permalloy or electrical steel. Including, at the frequencies of usual operation of power transformers 50 Hz and close to them 1-500 Hz, which can be created by typical industrial inverters used to supply brushless electric motors.

Below we provide drawings of similar possible transformers of the type "Grenade".

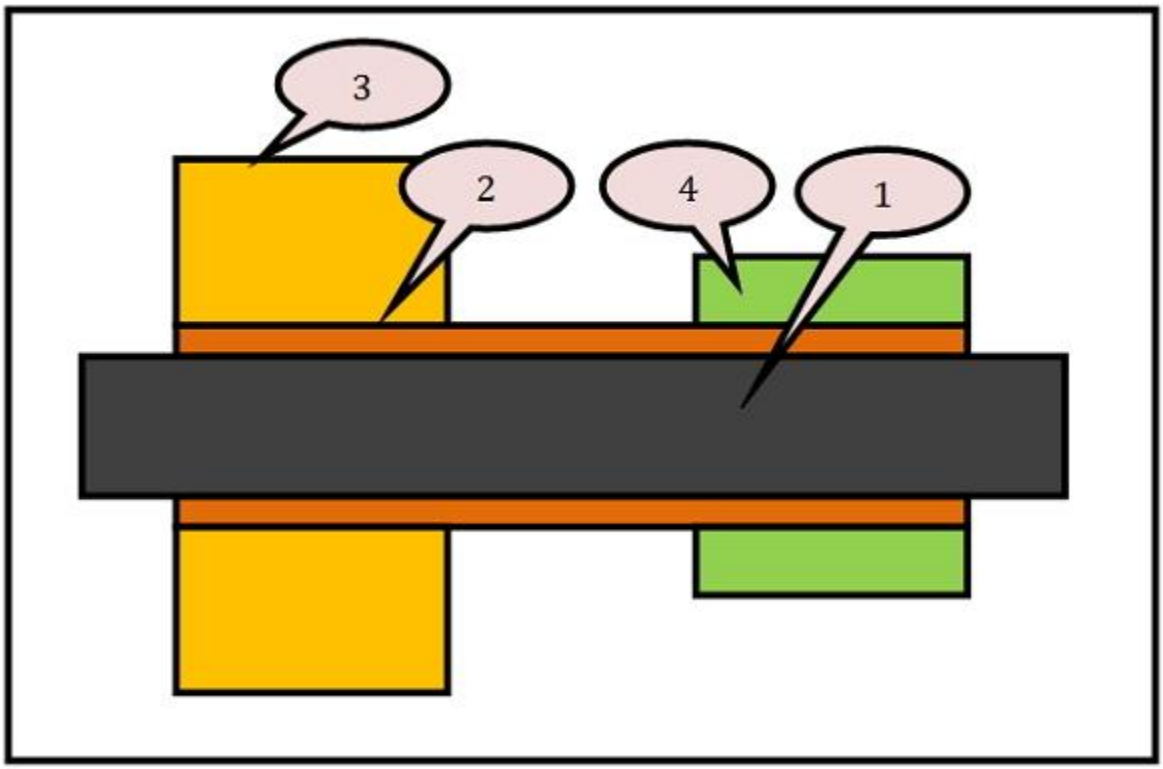


Fig. 1. Asymmetric transformer type "Grenade". Option 1.

Scheme of an asymmetric transformer with a core, a primary winding inductor, and a secondary bifilar winding of the “Granata” type, compensating for the magnetic flux of the secondary circuit in the vicinity of the inductor. 1 is a core of electrical steel, ferrite or permalloy, 2 is the working part of a bifilar winding on which an inductor acts. 3 - compensating part of the bifilar winding, 4 - inductor.

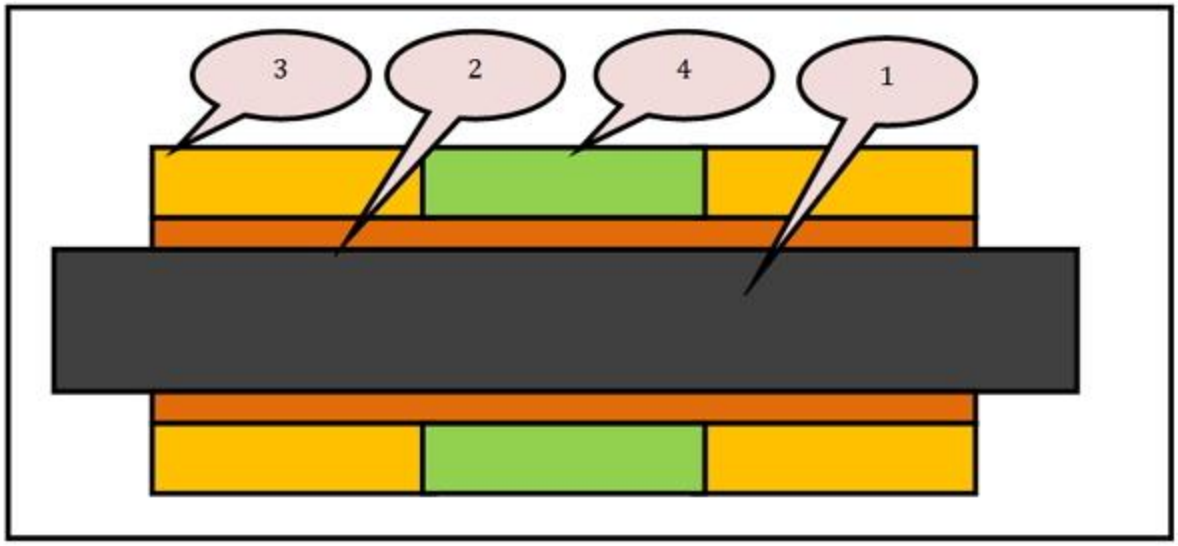


Fig. 2. Asymmetric transformer type "Grenade". Option 2
1 is a core of electrical steel, ferrite or permalloy, 2 is the working part of a bifilar winding on which an inductor acts. 3 - compensating part of the bifilar winding, 4 - inductor.

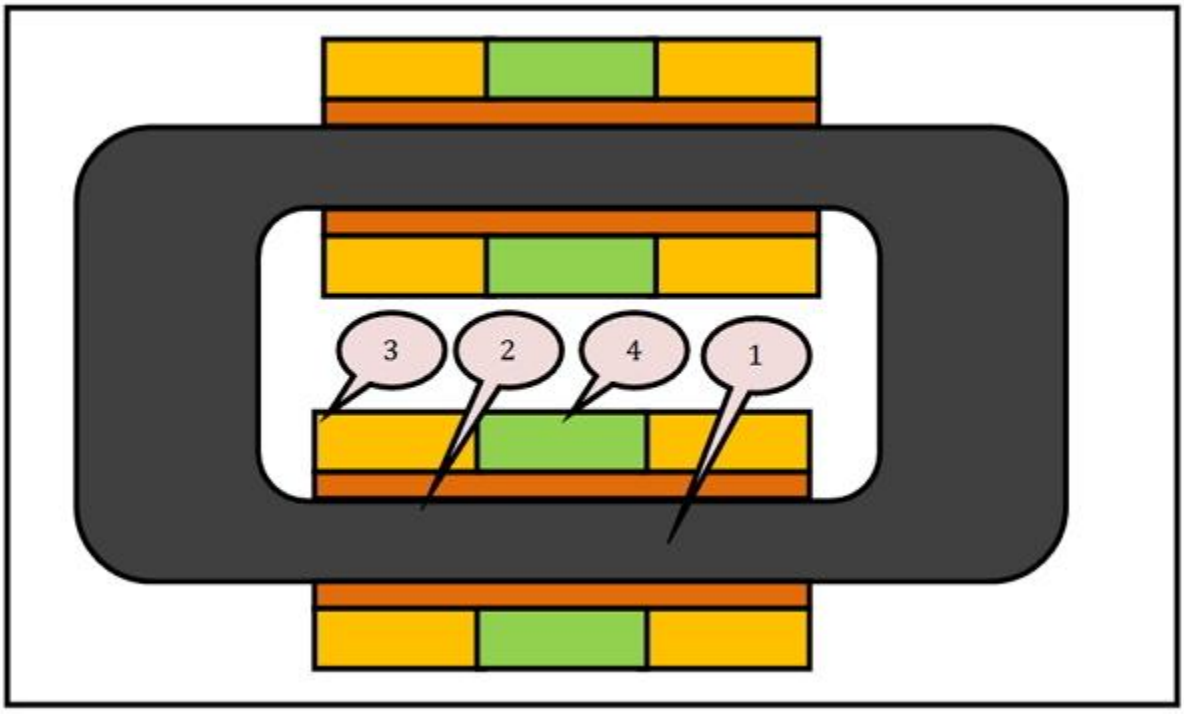


Fig. 3. Asymmetric transformer type "Grenade". Option 3
1 is a core of electrical steel, ferrite or permalloy, 2 is the working part of a bifilar winding on which an inductor acts. 3 - compensating part of the bifilar winding, 4 - inductor.

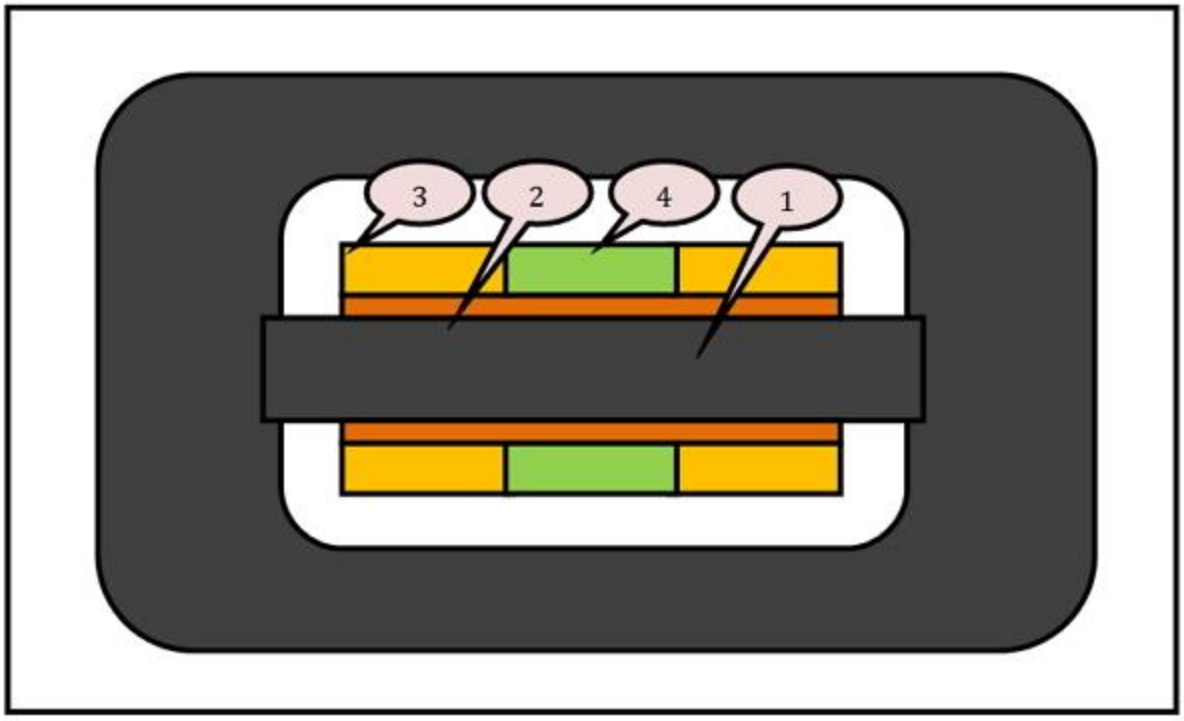


Fig. 4. Asymmetric transformer type "Grenade". Option 4
1 is a core of electrical steel, ferrite or permalloy, 2 is the working part of a bifilar winding on which an inductor acts. 3 - compensating part of the bifilar winding, 4 - inductor.

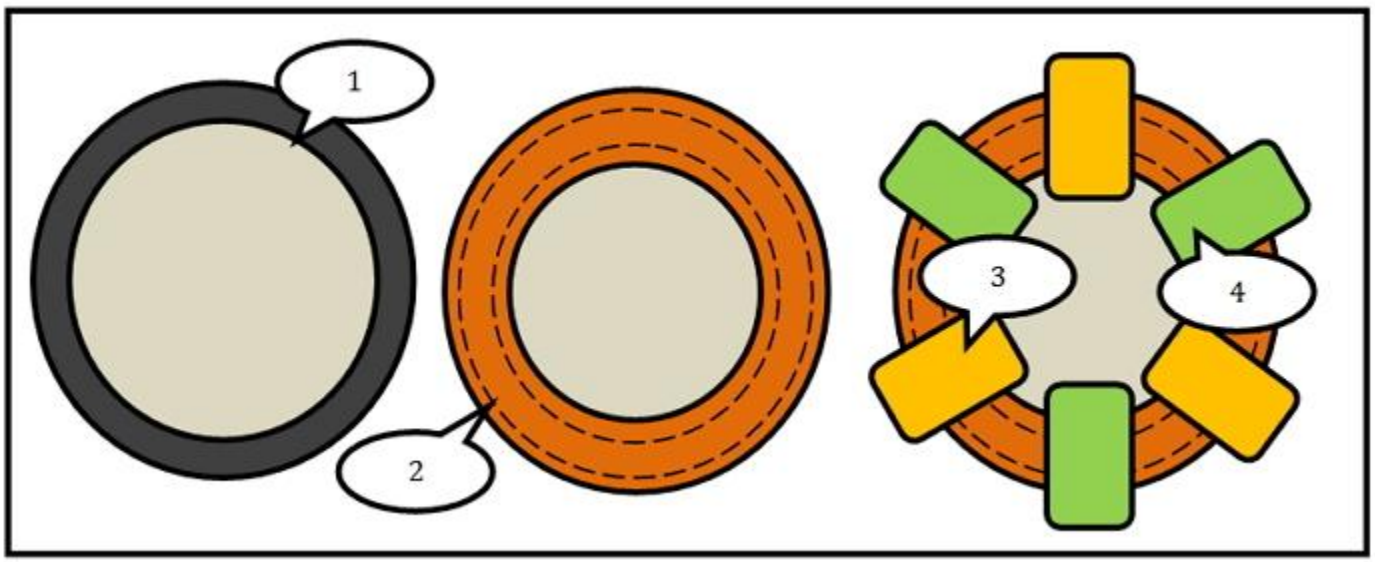


Fig. 5. Asymmetric transformer type "Grenade". Option 5
1 is a core of electrical steel, ferrite or permalloy, 2 is the working part of a bifilar winding on which an inductor acts. 3 - compensating part of the bifilar winding, 4 - inductor.

As you can see, the principle of a bifilar winding of the type "Garnet" allows you to create different versions of an asymmetric transformer.

So far this is only a hypothesis about the possibility of creating a transformer with such asymmetry of work. It is natural to test it in practice.

But perhaps it has already been checked up to us. The site http://bg-bg.ru/ shows power amplifiers operating on the basis of some asymmetric transformer-transgenerators, the secret of which is not revealed. It is possible that these transformers have the asymmetry of the magnetic fluxes of the primary and secondary circuits of the "Garnet" type.

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Power amplifiers

Let's look at power amplifiers on the site http://bg-bg.ru/. They increase the electrical power supplied to them by 3-5 times. Outside, these are plastic or metal boxes. Inside there is an electrical circuit like an inverter (equivalent current and voltage converter) and some transformer, presumably an asymmetric transformer of the type of “Garnet” or some other type unknown to us. If we had a circuit of this transformer, we could establish the principle of its operation. So far, we can view the device outside and inside from the photo.

Amplifier of power UME-30/220/380
Input power (kVA) 15
Output power (kVA) 40

Amplifier of power UME-30/220/380

Inside the UME-30/220/380 you can see some toroidal transformers of 2 pieces, the usual input or output step-down / step-up transformer, large-capacity cylindrical capacitors, a disk radiator of some powerful diode or transistor or a block of diodes and transistors, as well as some not entirely clear to me device, two parts of which are connected by an arc of blue wire, and located next to the blue wire controller chip that controls the transgenerator. Presumably, asymmetric transformer-transgenerators in this scheme are toroidal transformers. It is possible that they are built according to the "Grenade" type magnetic flux compensation scheme.

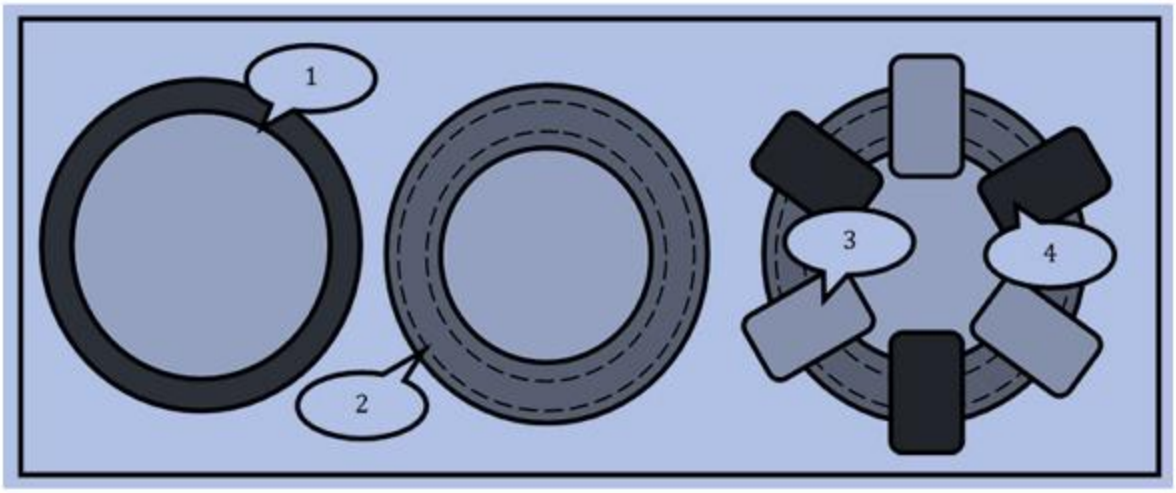

Fig. 5. Asymmetric transformer type "Grenade". Option 5
1 is a core of electrical steel, ferrite or permalloy, 2 is the working part of a bifilar winding on which an inductor acts. 3 - compensating part of the bifilar winding, 4 - inductor.

Presumably, the asymmetry of toroidal transformers of the power amplifier is constructed as shown in Fig.5.

Amplifier of power UME-100/220/380

These photos also show the power amplifier UME-100/220/380, only more powerful, per 100 kW.

Amplifier of power UME-100/220/380
Input power (kVA) 30
Output power (kVA) 100

The photo shows that inside the metal cabinet UME-100/220/380 there are simply communicators and switches. From them, thick wires lead to cylindrical transformers in metal casings located behind the metal cabinet. Presumably, it can be asymmetric transformers across the Grenata dummy with a bifilar winding that resets the magnetic flux of the secondary circuit.

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AAbramovich said: ↑

Link to the file “Work of bifilar windings of the type of granite.pdf”
https://cloud.mail.ru/public/7yCX/675FzRd1r
Based on the principles of compensation of the magnetic flux in a transformer with a secondary bifilar winding of the "Granata" type, the induction of the secondary circuit of the transformer to the primary one is eliminated. Whereas the induction of the primary circuit to the secondary circuit is retained. What makes this transformer a superunit transformer, that is, a transgenerator operating without counter-emf.

This idea can be translated into a practical plane.

Such a transformer must be checked prior to installation. How?

1. We measure the inductance of the PRIMARY winding. The result is recorded.

2. We close the SECONDARY winding short and repeat step 1. The result should be the same or close. To differ by no more than 5%.

That will indicate the elimination of the influence of the SECONDARY winding of the transformer on the PRIMARY.

3. We measure inductance of the SECONDARY winding. The result is recorded.

4. We close the PRIMARY winding short and repeat step 3. Inductance should REDUCE, and SIGNIFICANTLY! Up to 1-5% of the result according to claim 3.

If not so, then your "grenade is not the system" and spend money on chips and stuff is useless.

V__C, March 12, 2016
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V__C said (a): ↑

This idea can be translated into a practical plane.

Such a transformer must be checked prior to installation. How?

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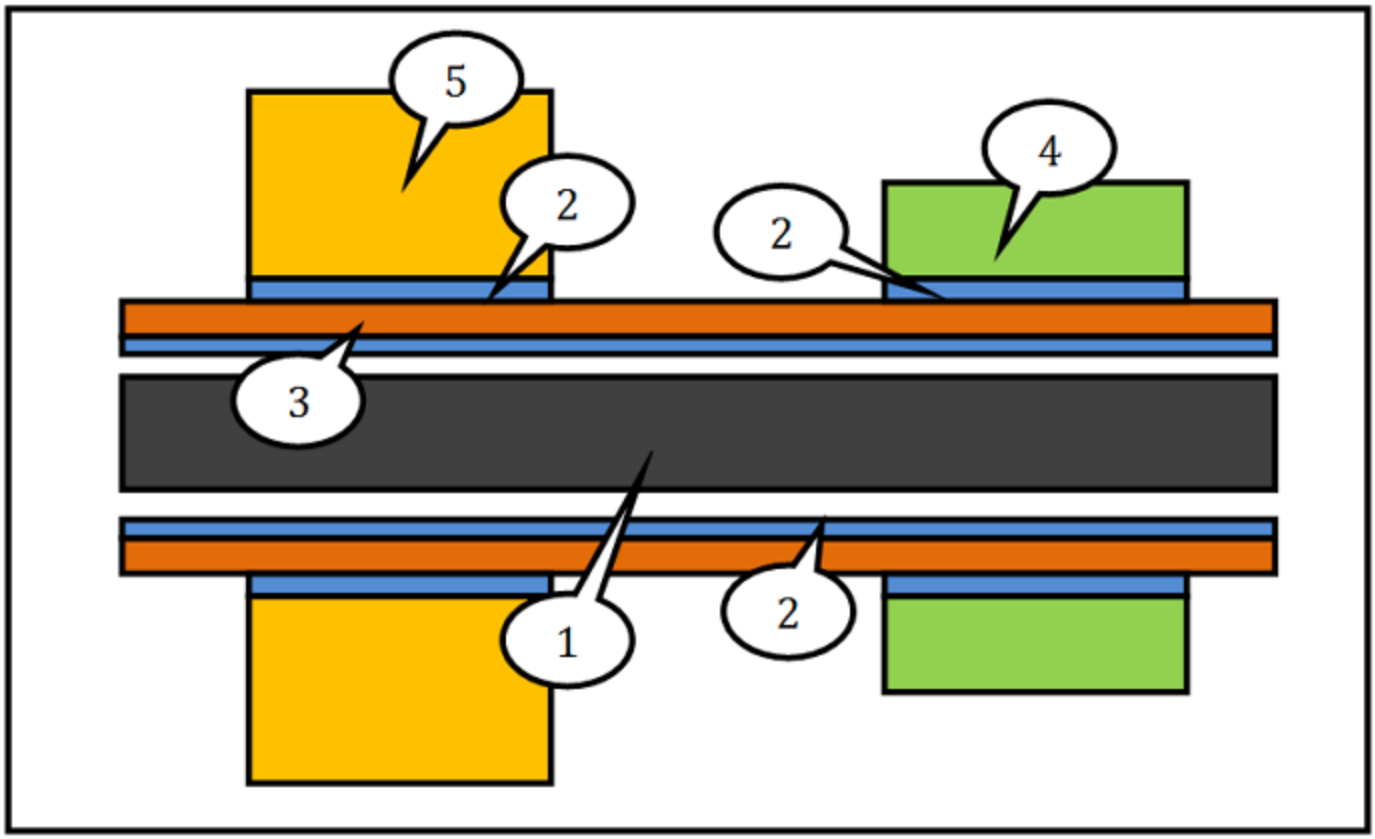

Fig.1. Installation for testing windings of the "Grenade" type.

1 - core, 2 - plastic pipe, 3 - working part of bifilar winding, 4 - inductor, 5 - compensating part of bifilar winding.

Naturally, you are right. This type of winding must be tested. But proportions are important in it. To wind windings for each kind of proportions will be difficult. Therefore, it is proposed to wind the secondary windings on the sections of plastic pipes so that they can be freely moved and adjusted in the course of the experiments. And also replace windings with different inductances.

But besides, or before that, it would not be bad to calculate this scheme on the ELCUT magnetic field modeling program or another similar program. What can significantly reduce the amount of effort to select the right proportions for a full-scale experiment. Otherwise, due to incorrect proportions, you can get a negative result. And throw the baby away with the water.

Generally, the chip is not needed. It is possible that this design will work as a simple pure transformer, only in an asymmetrical way.

In electric cars, the selection of distances to fractions of a millimeter is important. In this scheme, I think the selection of the distance between the windings along the pipe is important to 2-5 mm. Since this will affect the magnetic flux properties. Is there no? Maybe the core eliminates this problem altogether, and you just need to pick up the inductances of the bifilar windings so that they are zeroed on the core by their action? And then the effects on the magnetic flux will not have. And the inductor will have. How do you think?

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