

Asymmetrical Transformers Pg5

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 "Operation of bifilar windings of the _granate type.pdf"

<https://cloud.mail.ru/public/7yCX/675FzRd1r>

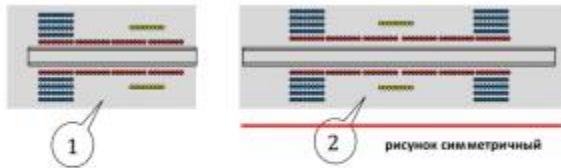


Рис.14. Трансформаторы с бифиларными обмотками. 1,2 - два варианта устройства асимметричных обмоток трансформаторов.

ince childhood, I love to ask questions.

I understand that bifilarka should be wound in 2 wires with opposite directions of currents.

The figure is not clear where these wires.

It is desirable to provide a wiring diagram for the coils, if any.

Are inductances of secondary coils the same? Or does it not matter?

If the arrangement of the coils is symmetrical, then how is tr-r asymmetric?

Davi, March 13, 2016

Davi said: ↑

View attachment 11630

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If the arrangement of the coils is symmetrical, then how is tr-r asymmetric?

Asymmetry is understood to mean the different direction of winding of the winding halves. In the case of Figure 1, the blue and red windings are wound in different directions, but the inductances of these halves will be different due to the difference in the lengths of the wire in both, and the whole winding will not be non-inductive. If a current is passed through such a winding, then the magnetic field of the blue part will be greater than the red one.

Grandfather75, 13 March 2016

82

AAbramovich said: ↑

Well, if so. I fear, as it were, it did not happen that if the inductances of both parts of the bifilar winding are the same, if in the region of the inductor the magnetic flux is zeroed (more or less), then the induction from the inductor into two parts of the winding may be the same. Then we will not get voltage, current and power in the secondary winding at all.

1. Something similar takes place.

Two practitioners reported the results of their measurements of the grenade.

A romanche grenade is wound with a bifilar:

romanche said: ↑

I also checked my G using this technique. Inductor L1 = 225 μ H, L2 = 173 μ H, L3 (beef) = 151 μ H? L4 = 114 μ H.

$L1-L2 / L1 = 225-173 / 225 = 0.23 \times 100\% = 23\%$

$L3-L4 / L3 = 151-114 / 151 = 0.245 \times 100\% = 24.5\%$

Asymmetry = + 1.5%. The figure shows a tendency to bifilarity, but the value is small.

At Gerasim49 it is usually wound:

Gerasim49 said: ↑

I measured it with my own: long half 0.171 μ G, short 0.26 μ G. Together, 0.181. With the short circuit of the 0.11 short circuit, with the long circuit - 0.17 μ G.

The effect of short on long: $0.171-0.11 / 0.171 = 0.3567 \times 100\% = 35.7\%$.

The effect of long on short: $0.26-0.17 / 0.26 = 0.346 \times 10\% = 34.6\%$.

Asymmetry = - 1.1%. The effect is rather the opposite.

2. It is embarrassing that the absolute measurements of the ONE and the SAME coils differ by three orders of magnitude. Most likely, Gerasim49 has a unit of measure not of microGenra, but milliGenry.

3. It is also necessary to consider the role of the high-voltage switch in switching parts of a grenade.

Is it possible that Grenade + key = transgenerator in the THIRD quarter? How do you think?

V__C, March 13, 2016

83

omanche said: ↑

Apparently something is wrong with the settings of Word /

Here in the html version of the archive. <http://depositfiles.com/files/hf35mtcqz>

I have Linux - openSUSE 13/2.

From Windows and Vordov got rid of 6 years ago.

html - downloaded, thanks! I will read the article capacious.

V__C, March 13, 2016

84

randfather75 said (a):

V__C, do not take it for work, give an exact link to this page, otherwise I can not find it.

I give: [http://zaryad.com/forum/index.php?t...super-unit schemas.8970/page-3#post-77206](http://zaryad.com/forum/index.php?t...super-unit%20schemas.8970/page-3#post-77206) and
[http://zaryad.com/forum/index.php?threads/Parametric- resonance-CE devices.8984/](http://zaryad.com/forum/index.php?threads/Parametric-resonance-CE-devices.8984/)

V__C, March 13, 2016

85

AAbramovich said: ↑

I did not manage to figure out the magnetic field of Nikolaev. I do not quite understand what it is. Also its properties are not clear. And what is the evidence in experiments that there is such a field? And not just an effect formed by a peculiar combination of the Ampère-Lorentz forces. In addition, the name is unfortunate. What is this scalar field? It is better to say longitudinal, in the direction of the current?

The book is voluminous, so to speak, the work of life of Nikolaev Electrodynamics of physical vacuum

I highly recommend at least viewing, I think that you will have no problems with math.

Of the scraps of field theory that have survived in my head, I just remember that the rotor divergence is zero: smile3:

Although Nikolaev believed that an adequate apparatus of electrodynamics can only be built on the basis of ethereal ideas, to resolve the paradoxes and inconsistencies it contains, he proposed a formalism in which the magnetic field (which, generally speaking, is an extra entity) has two components, the traditional vector and the missing scalar.

For the vector potential A

$H_{\text{vect}} = \text{rot } A$

$H_{\text{cal}} = -\text{div } A$

evilimp, 13 March 2016

86

evilimp said: ↑

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For vector potential A

$H_{\text{vec}} = \text{rot } A$

$S_{\text{kal}} = -\text{div } A$

I read the book of Nikolaev in my time. And even worked through. In the scalar field believed. But now at the new stage there are questions. We can define the electric field as the field of accelerations acting on the charge along the field vector. While we can define the magnetic field as the field of rotation (angular velocity of rotation $B = \omega$) of the reference system of a moving charge. What creates lateral centripetal accelerations, which are the electric forces of the Lorentz ampere. Thus, the accelerations created by the magnetic field act not

along its vector, and only on moving charges. If we proceed from this definition of fields, and the fact that the field of Nikolaev acts along its vector (accelerations are created along the field vector), then this field, in accordance with the definitions of the electric and magnetic fields, is electric rather than magnetic. It refers to a magnetic field because its vectors are created by the motion or current of charge conduction (rather, the conduction current). But this is not an argument. Since the fields of the electric forces of Ampère-Lorentz are also created only when the relative movement of the charge. So you need to decide whether the field of Nikolaev is an electric or magnetic field?

AAbramovich, March 13, 2016
87

Conductivity Current Hypothesis

Link to the file "New approaches to electrodynamics.pdf"
cloud.mail.ru/public/6N2K/1SznPz3ye

According to the hypothesis of the algorithmic theory of the field, the conduction current is not connected in the external movement of the charges, but is associated only with some internal quantum wave of the charge, flowing inside of it and having the velocity "u" in its own coordinates, while the same wave in other reference systems has the speed "v" what is convection current.

The magnetic field is formed only by the internal motion of the charge wave, therefore it is not relative, but absolutely, that is, it can exist even in the reference frame of the charge at rest. If the internal current wave is open, then a magnetic field is formed like that of a conductor. If it is closed, then the magnetic field corresponds to the magnetic moment of the electron and a permanent magnet.

Thus, the conduction current can be formed by quiescent charges and in an open conductor.

Then why are the currents usually closed?

The reason for this is that the charge shifting in an external electric field creates an electric displacement field in the direction of the external field vector. In view of this, the action of this field accelerates the charges and if they are not fixed in potential wells, then they are shifted to one side and a potential difference is formed and an opposite electric field at the ends of the conductor stops the current.

Superconductivity

Usually, the charges are not fixed as they are knocked out of the pits by thermal movement. If there is no thermal motion, then the charges remain in the potential wells and the phenomenon of superconductivity is observed. That is, the current flows without resistance. Such superconducting conductors, as experience shows, may not be closed. This is the rationale for the new theory of conduction current and the formation of a magnetic field by it. The presence of current in an unclosed superconducting circuit is fixed by the magnetic field.

Magnetic field interaction with charges

The interaction of the magnetic field with the charges occurs and the speed of the internal wave of the conduction current and the speed of the convection current. In view of this, the formula of the Ampere-Lorentz forces is

$$E\mathbf{v}u = \mathbf{B} \times \mathbf{v} + \mathbf{B} \times \mathbf{u} = E\mathbf{v} + E\mathbf{u}$$

$$F\mathbf{v}u = qE\mathbf{v}u = q(\mathbf{B} \times \mathbf{v}) + q(\mathbf{B} \times \mathbf{u}) = qE\mathbf{v} + qE\mathbf{u} = F\mathbf{v} + F\mathbf{u}$$

In particular, parallel electron beams are attracted, because the Ampere-Lorentz force associated with the velocity wave $\mathbf{u}$ inside the charges themselves in the reference frame, where they rest, acts. The magnetic field created by this wave is also present there. Whereas the interaction with respect to the velocity $\mathbf{v}$ is equal to zero, since the mutual velocity of the charges is zero, $\mathbf{v} = 0$. Therefore, the Lorentz force has a value

$$F\mathbf{u} = qE\mathbf{u} = + q(\mathbf{B} \times \mathbf{u})$$

where the field $\mathbf{B}$ is the field created by the internal wave of the charges themselves moving at a speed $\mathbf{u}$ in the reference frame of the charges themselves.

Thus, the magnetic field and magnetic interaction is not relative, but absolute. That is, the basic principles of electrodynamics about the magnetic field are not true. In particular, the magnetic field is not created by the relative movement of the electric field. That is, the formation of a magnetic field from the bias currents does not occur.

Magnetic field of Nikolaev

[img]

So. Two basic formulas for field formation are shown here. The usual magnetic field and the field of Nikolaev.

What do we see?

1. Field operators depend on the speed $\mathbf{V}$, which means the fields are relative. Which subsequently leads to relativity of the action of the force operators in which these fields participate. But the forces existing in reality are the same in all reference frames. So these formulas are wrong. The true character (possibly! [IMG]) will acquire these formulas if they replace the relative velocity $\mathbf{V}$ with the absolute velocity $\mathbf{U}$ of the motion of the quantum wave of the charge in its own coordinates. That is, the form of the formulas will be as follows, if we discard the coefficients

$$H_{\perp} = \mathbf{E} \times \mathbf{u}$$

$$H_{\parallel} = E\mathbf{u}$$

Further, the formation of electric fields through these operators has the form

$$E(\perp) = (H_{\perp} \times \mathbf{u}) + (H_{\perp} \times \mathbf{u}) = E1 + E2$$

$$E(\parallel) = H_{\parallel}\mathbf{u} + H_{\parallel}\mathbf{v} = E3 + E4$$

Forces are obtained by multiplying the magnitudes of the charges by the magnitudes of the generated electric fields. $E(\perp)$ are the Ampere-Lorentz force fields. $E(\parallel)$ are the electric fields of the forces of Nikolaev.

$$\text{Ampere-Lorentz} = qE(\perp) = q(H_{\perp} \times \mathbf{u}) + q(H_{\perp} \times \mathbf{u}) = qE1 + qE2$$

$$\text{Nikolaeva} = qE(\parallel) = qH_{\parallel}\mathbf{u} + qH_{\parallel}\mathbf{v} = qE3 + qE4$$

So what do we have? We have that the so-called magnetic fields of Ampere and Nikolaev are intermediate field operators, and not the acceleration field itself.

$$H_{\perp} = E \times u \quad H_{\parallel} = Eu$$

That is, these are fields of additional operators, and not fields of acting forces. Moreover, it is better to use frequency dimension or angular velocity for these types of fields. Then the acceleration action operators get the simplest form

$$E(\perp) = (B_{\perp} \times u) + (B_{\perp} \times v) = E_1 + E_2$$

$$B_{\perp} = [\text{sec}^{-1}] \quad E(\perp) = [m / s^2] \quad u = [m / s] \quad v = [m / s]$$

$$E(\parallel) = B_{\parallel}u + B_{\parallel}v$$

$$B_{\parallel} = [\text{sec}^{-1}] \quad E(\parallel) = [m / s^2] \quad u = [m / s] \quad v = [m / s]$$

where respectively

$B_{\perp}$ is the angular velocity of rotation of the charge reference system by the Ampere field operator

$B_{\parallel}$ is the angular velocity or the frequency of changes in the velocities u and v , that is, it is either some kind of helical translational motion, or frequency translational motion with a certain step or acceleration

Such is the physical meaning of all the operators of these fields.

AAbramovich, March 14, 2016

88

AAbramovich said: ↑

If we proceed from this definition of fields, and the fact that the field of Nikolaev acts along its vector (accelerations are created along the field vector), then this field, in accordance with the definitions of the electric and magnetic fields, is electric rather than magnetic. It refers to a magnetic field because its vectors are created by the motion or current of charge conduction (rather, the conduction current). But this is not an argument. Since the fields of the electric forces of Ampère-Lorentz are also created only when the relative movement of the charge. So you need to decide whether the field of Nikolaev is an electric or magnetic field?

I think that a magnetic field is generally an artifact behind which the dynamics of an electric one are hidden. Erokhin has sound thoughts about this.

Evilimp, March 14, 2016

89

V__C said (a): ↑

I give: <http://zaryad.com/forum/index.php?threads/Asymmetric-transformers-in-superunit-circuits.8970/page->

3#post-77206 and

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

Thank you Compared to Papaleksi and Mandelstamm, "many bukoff" and everything is confused. And of course, the wrong level ...

Grandfather75, March 14, 2016

90

evilimp said: ↑

I think that a magnetic field is generally an artifact behind which the dynamics of an electric one are hidden.

Erokhin has sound thoughts about this.

The theory of delayed potentials allows for parallel moving charges due to delayed potentials to rotate the field strength vector within 90 degrees. In fact, at high speeds and distances between charges per fraction of a degree. Then how to rotate the vector 180 degrees is impossible. Therefore, this theory cannot explain the attraction of parallel co-directed electron beams in their own CO motions. For this, the magnetic field must not be relative, but absolute. And the delay in potentials does not help here. The only explanation is given by the theory of the formation of a conduction current and a magnetic field based on the internal motion of charges. What is stated above in the message No. 88.

Link to the file "New approaches to electrodynamics.pdf"

<https://cloud.mail.ru/public/6N2K/1SznPz3ye>

AAbramovich, March 14, 2016

91

V__C said (a): ↑

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.
Click to reveal ...

Having examined again the question of bifilar or almost bifilar windings of the "Grenade" type, we came to the following conclusion. Opposite parts of the garnet winding need not have equal inductance. They may have different inductances. And a different length of winding. And even that will be probably better. But their total effect on the inductor should create zero EMF in the inductor. To do this, move the inductor along the "grenade

handle” and find the desired position. The values of the inductances of the coils should also be proportional to this, but not equal. What can be achieved experimentally by selecting winding inductances and distances. Including, in the ELCUT program or other similar. Then we get the lack of counter-emfs on the inductor, since the magnetic flux in its region is zeroed. And not even the magnetic flux, which can be uneven, but the total EMF at the inductor. Whereas the effect of the EMF of the inductor on the windings of the grenade will remain and will not be zero, due to the asymmetry of the system of almost bifilar winding, both in inductances and in distances.

Hence, the approach proposed in the V__C reports on the calculation and testing of grenade windings does not seem to us completely correct. Need to change this approach.

The testing system should possibly be changed as follows. Connect the frequency generator to the grenade and position the inductor relative to it, moving it so that the total emf on it from the grenade is almost zeroed out and the oscillation amplitudes disappear or reach their minimum, creating a minimum emf. This minimum emf (which will become the counter-emf when the system starts up in the opposite direction) will have to be compensated for from the energy that will be generated on the inductor by the previous parts of the installation.

AAbramovich, March 14, 2016
92

AAbramovich said: ↑

Hence, the approach proposed in the V__C messages for calculating and testing the windings of a grenade does not seem to us to be completely correct. Need to change this approach.

In the post ChadoBoga described intelligent instructions for adjustment:
<http://zaryad.com/forum/index.php?t...tanks-BTG-akula0083.8886/page-58#post-79071>

V__C, March 14, 2016
93

Davi said: ↑

I understand that bifilarka should be wound in 2 wires with opposite directions of currents.

<http://zaryad.com/wp-content/uploads/2012/09/Bifilyarnye-katushki-vvedenie.pdf>

UR4III, March 14, 2016
94

AAbramovich said: ↑

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.

I did not set myself the goal of dealing with this "grenade". Just put my 5 cents.

Bifilar coil winding is a two-wire winding. No more. MP may or may not be compensated. I gave the link above.

If you need a coil without an MP, then it is wound with a piece of wire bent in the middle. Of course, such a coil is powered from an external source of emf. The use of such a winding in a trance is nonsense! Two wires will induce emfs of the same directivity and, therefore, the same signs of polarity will be at the terminals of the coil. There is no current or MP in such a coil.

UR4III, March 14, 2016

95

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Here we already understand as a bifilar not only a coil wound with a wire bent in the center, but also two separate windings arranged side by side, connected in series and compensating their magnetic fields to one degree or another. That is, our understanding of bifilarity is broader. And its purpose is to achieve asymmetry in the interaction of the primary and secondary circuits of the transformer, in order to reduce the back-emf acting on the primary circuit from the secondary circuit. And that means getting the necessary and additional energy on the secondary circuit. Whereas only the necessary energy will be spent on the primary one.

AAbramovich, March 14, 2016

96

Abramovich said (a):

Here we already understand as a bifilar not only a coil wound with a wire bent in the center, but also two separate windings located side by side, connected in series and compensating their magnetic fields to one degree or another.

Those. the end of the first coil is connected with the beginning of the second?

So the currents in the adjacent turns of the coils are unidirectional! MP decline no.

Listen here. You (I do not mean you personally) have the wrong idea about the operation of a transformer. The magnitude of the counter-emf in the primary winding is proportional to the magnitude of the power transmitted to the secondary. The less you do this protivnu emf, the less energy you get in the secondary. Described in all the textbook and confirmed by practice.

UR4III, March 15, 2016
97

UR4III said: ↑

Listen here. Described in all textbooks and confirmed by practice.

Send us to "all textbooks"? According to the Forum Rules, the ban is shining.

You forgot the main thing: the Forum is a haven of seekers and believers in CE!

What do the lost pessimists do here?

V__C, March 15, 2016
98

Respected! Any business begins with a justification of its relevance. Relevance is derived from the current state of the issue that you intend to resolve. In this state, it is necessary to detect the gaps, put them out and show how you solved them.

The theory of transformers has been developed for a long time. Before crawling with innovations, it is necessary to adhere to this procedure, presented above. Namely: to detect the effect that does not fit into the existing theory.

So show how the MP decreases in two adjacent turns, the currents in which are unidirectional, and then you will turn on the Inquisition.

The word halva in the mouth does not become sweeter.

UR4III, March 16, 2016
99

R4III said: ↑

It starts with a justification of its relevance.

No need to impose your procedures.

UR4III said: ↑

Before you climb with innovation, you must adhere to this particular procedure.

Get carried away, Vladimir Mikhailovich!

No one will climb to you.

V__C, March 16, 2016
#100

