

## Description

Transformer Calculation v0.1 is program for calculating number of coils and wire thickness.

If you have some experience in assembling transformers, then this program is perfect for you.

If you don't know anything about assembling transformers, please don't use calculations from this program for building your own transformer!

**Wrong calculation can do damage to your electric device attached to electric network, and IT CAN KILL YOU !!!**

You can still use this program to determine how big EI core of transformer must be, if you plan to buy transformer. Note there are lot of transformers that are hybrids, so if you need transformer for amplifire buy right sized transformer. Hybrid transformer are ordinarily small and under high load it can overheat.

Current version can calculate values only for standart transformer core, that's "W" and "U" profile of core.

Toroid transformers (ring profile of core) and others aren't supported.

How I decide to write this program? Well it's simple, I work calculation for new transformer and I didn't have that thin wire for coil. So I lose some hours while recalculating new voltage and amperage for wire which I have.

I started to assemble wire on coil and realise that wire isn't long enough. Then I write this program and lose 3 minutes to make new calculation for that transformer with new wire.

Transformer is finish and work perfect in my amplifire 2x7 Watts. 😊

I think that you can find this program useful.

You can write to me suggestions, corrections and other things on e-mail: [sklaic@student.math.hr](mailto:sklaic@student.math.hr)

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## TODO

Here is the list what can else I put in program:

- Add edit option for input voltage.
  - Fix some bug if it's found.
  - Program for recalculating if calculated wires can't fit on coil.
  - Program for calculating from sqare of core, wire thickness and wire resistance characteristic of transformer (input/output voltage and amperage).
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## Copyright

Copyright © by Silvio Klaic 1999.

This is free software and there is no warranty if something happend by using this program.

Use this program with care!

If you allredy test and assemble transformer then that program may be very usefull.

Otherwise **do not try to assemble transformer using calculations from this program!**

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## Transformer Calculation v0.1

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Square dimension of the core  
 50 x 48 millimeters  
 MAX power: 576 W

**Primary coil ( input parametars )**

Input: 220 Volt  
 VOLTS      miliAMPERS  
 220      2258,181  
 ADD      DELETE  
 CLEAR

Current power: 496,8 W

**Secondary coil ( output parametars )**

VOLTS      miliAMPERS  
 27      8000  
 ADD  
 27       8000  
 27       8000  
 DELETE  
 CLEAR

**Number of coils - wire thickness (  $\phi$  )**

443      1,05 mm  
 CALCULATE      Options...      EXIT

**Number of coils - wire thickness (  $\phi$  )**

54      1,98 mm  
 54      1,98 mm

Click on region from which you want help or click on links below.

Transformer IE core square dimension:

- Height and Width of core intersection.
- Maximum power of core.

Primary coil - parametars:

- Input voltge of transformer.
- Button for adding wanted voltage to list.
- List of selected input voltage.
- List of calculated input amperage.
- Delete and Clear buttons.
- Current calculated power.

Secondary coil - parameters:

- Output voltage of transformer.
- Output amperage of transformer.
- Add/Change button for adding/changing wanted voltage and amperage to/in lists.
- List of wanted output voltage.
- List of wanted output amperage.
- Delete and Clear buttons.
- Check box option in list.

Coils, wire thickness, buttons:

- Input and output number of coils.
- Input and output wire thickness.
- Calculate button.
- Options button.
- Exit button.

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