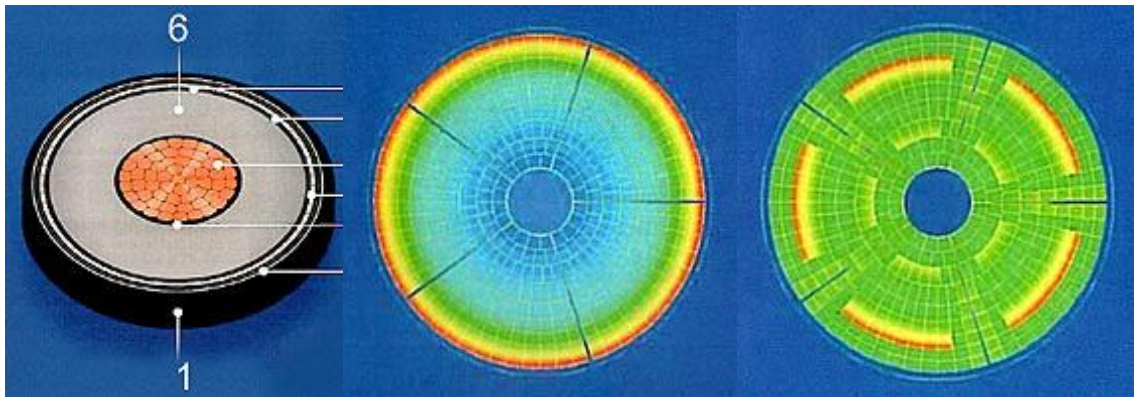
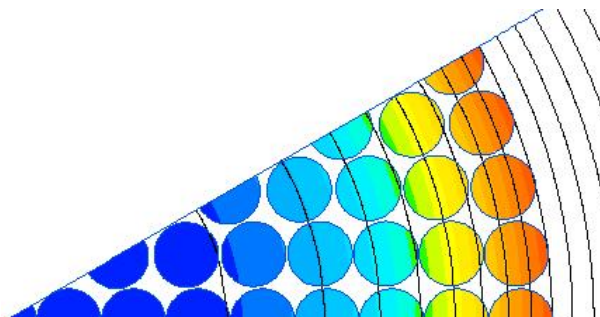
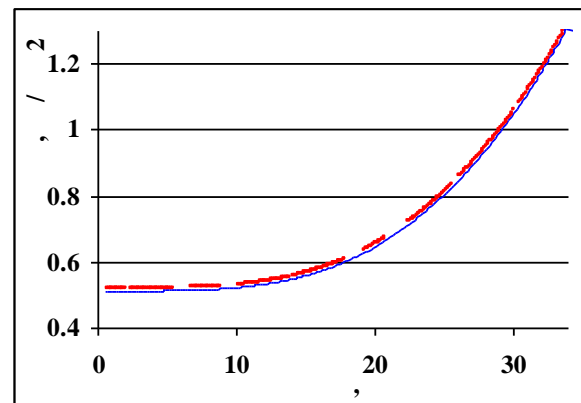


: 10 - 3 (!) -
 1
 : 110, 220, 330, 500 1200
 : 1000, 1600, 2000, 2500, 3000 ² [6-8]. (1...5)
 (.3.)



.3.



.4.

(- , σ -)

.5.

$$\mu_0 = 4\pi \cdot 10^{-7} = 1,25 \cdot 10^{-6} = (\sigma \mu_0 \omega / 2)^{1/2} = 3,3$$

2700² " ":

10...15 (10...20% .

[9-12]. (...).

: (" "), (" "),

- [/] -

- L [/] -

- R [/] -

- G [/] -

- $\partial U / \partial z = L \partial J / \partial t + RJ$

- $\partial J / \partial z = C \partial U / \partial t + GU$

6000 . 50

Z V:

- $Z = (L/C)^{1/2} [/] -$

- $V = 1/(LC)^{1/2} [/] -$

- Z - ()

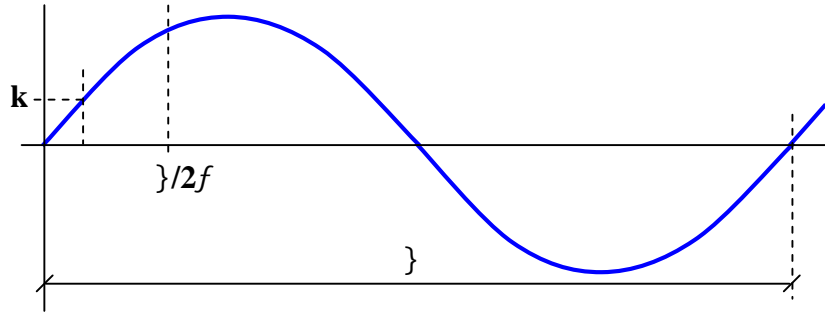
- V -

() L C,

[1-4] , f = 50, 800 [2] 1000 [1]

1,0 (1%) , k = $\omega / V \ll 1$ ($\omega = 2\pi f$).

$V = 3 \cdot 10^8 / c = 100$, k = 0,002 .



. 6.

$$\ll \lambda/2\pi, \quad \lambda = f/V$$

$\sin(\omega t)$.

k.

k,

: $k = 0,1 - 1\%$

$\sim 10\%$, $k = 0,01 - 1\%$

$\sim 1\%$, $k = 0,002 - 0,2\%$.

L.

$1/5 - 1/5$

: 2,0

1,0, 5,0

2,0 ...

10...1000

[5]

(1)

$$k = 30...3000 \gg 1.$$

[13].

V, Z,

L R

[4]

Z,

C L -

V

$$: L = Z/V = 1/ZV.$$

L, Z, V -
f ~ 1...10)
f > 1...10

L C

L C

C L

[14-16].

1...10

1.

2.

3.

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20.10.2013 .