

621.328:621.316

1 2

1

2

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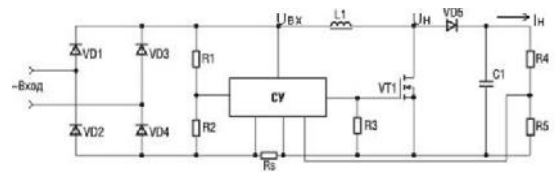
( , 3-4, 2015 ., . 43-44)

IEC 61000-3-2:2004.

9,25

( . ).

.1.



.1.

L6562

Boost

converter

$U$

L6562

$U$

( STMicroelectronics).

$I$

$L_1$

$W$

$$W = U nI + (U - U n)I , \quad (1)$$

$$(U - U_n)I$$

L6562

$$L_1,$$

$U = 220V$  (

$$), U_n = 2 U = 311V$$

(

$$U = 400V, I_{const}$$

Transition Mode (TM) -

(CCM)

$W$

$$W = (U - U_n)I$$

(DCM),

:

$$W / W = U_n / (U - U_n), \quad (2)$$

$$W / W = 311/89=3,49,$$

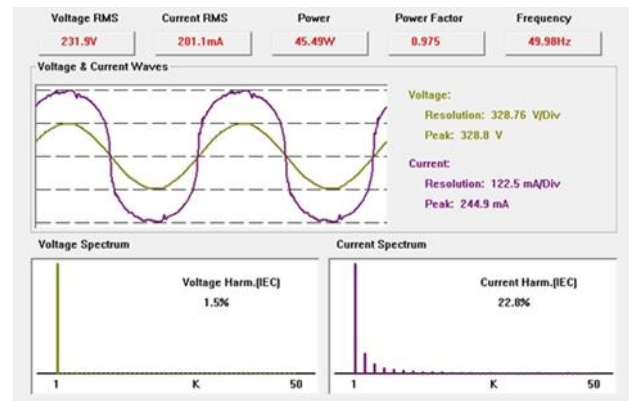
$$W / W = 400/89=4,49.$$

IEC 61000-3-2:2004,

(.3).

IEC 61000-3-2:2004

L6562



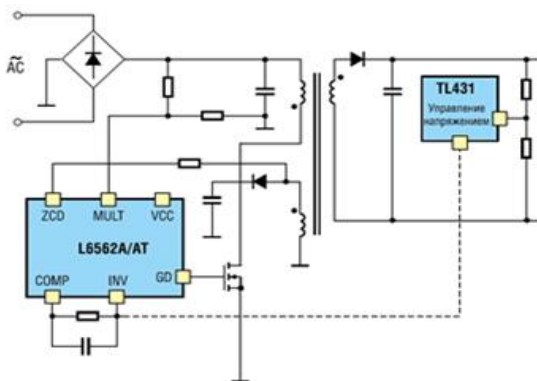
.3.

L6562

220V

22,8%.

RC



.2.

L6562

$$R11=0,51k, C11=1000pF.$$

$$1000pF \quad 39000pF,$$

C11

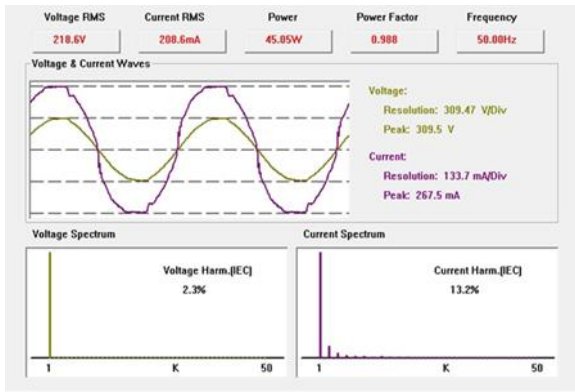
$$RC = RC = 20\mu S.$$

(.4),

13,2%

(Power Factor) 0,988

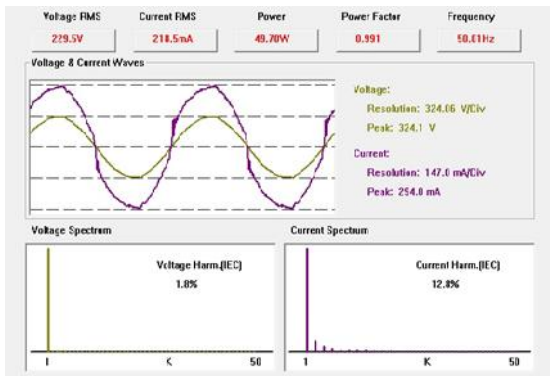
0,975 (.3).



.4. L6562

RC R3=4,7k  
 C9=10000pF. C9 0,15µF  
 =RC=0,7mS,  
 T=10mS

12,8%, 0,988  
 0,991.



.5. L6562

L6562

IEC

61000-3-2:2004

1. ( ).

// - 10-2010 -

.6.  
 2.  
 :  
 //  
 - 9(101)-2011- .17-23.

3. PFC  
<http://www.kosmodrom.com.ua/prodlist.php?page=0&name=l6562&okbutton=%CF%EE%E8%F1%EA+%EF%EE+%F1%EA%EB%E0%E4%F3>

4. . 15.04.2010  
<http://www.promelec.ru/company/news/503/>  
 5. IEC 61000-3-2:2004  
 3-2.  
 ( 16  
 ) (IEC 61000-3-2-:2004, IDT).

### References

1. Sergej Mironov (KOMPEL). Integral'nye drayvery dlja svetodiodnogo osveshhenija// Novosti jelektroniki- 10-2010b-S.6.
2. Aleksandr Kalachev. S nizkim startovym tokom: korrekory kojefficienta moshhnosti ot STM// Novosti jelektroniki- 9(101)-2011-S.17-23.
3. Katalog. Kontrolery PFC. Rezhim dostupa: <http://www.kosmodrom.com.ua/prodlist.php?page=0&name=l6562&okbutton=%CF%EE%E8%F1%EA+%EF%EE+%F1%EA%EB%E0%E4%F3>
4. Poluprovodnikovye drayvery dlja pitaniya svetodiodov. 15.04.2010 Rezhim dostupa: <http://www.promelec.ru/company/news/503/>
5. DSTU IEC 61000-3-2:2004 Elektromagn tna sum sn st'. Chastina 3-2. Normi. Normi na em s ju garmon k strumu (dlja sili vh dnogo strumu obladnannja ne b l'she 16 A na fazu) (IEC 61000-3-2-:2004, IDT).

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( , 3-4, 2015 ., . 43-44,)

61000-3-2: 2004.

IEC

## THE LAWS OF PLOTTING AND CHOICE OF THE ELEMENT BASE OF LED ILLUMINANTS AND THEIR CONTROL SYSTEMS

S. Litovchenko

*As a result surveying's, of calculations and measurements, mentioned in this article, was analyzed the capability of application as PWM the controller of microcircuit L6562 frequently been used the designers of illuminants in connection with its operational reliability, simplicity implementation and low value. However in investigated the driver of office illuminant, in the application of this microcircuit in the transient behavior of the operation of the adjusters of phase factor with the utilization of the means of voltaic cross coupling between feed-in mains and output termination, appeared the necessity of the correction of the typical chart of the inclusion of values PWM controller for the improvement of it performance according to the State Standard IEC 61000-3-2: 2004 .*

*Then were determined networks being subject correction, for which were calculated the performance of RC networks as a result what managed to bring down the coefficient of the harmonic deformations of incoming current practically twice as well as to avoid the deformations of the form of the sinusoid of incoming current which led to the additional gain of the value of the coefficient of the correction of power in 100% the load of inductor.*

**Key words:** LED driver, of dimming luminous flux, LED cluster, inductor, PWM controller.