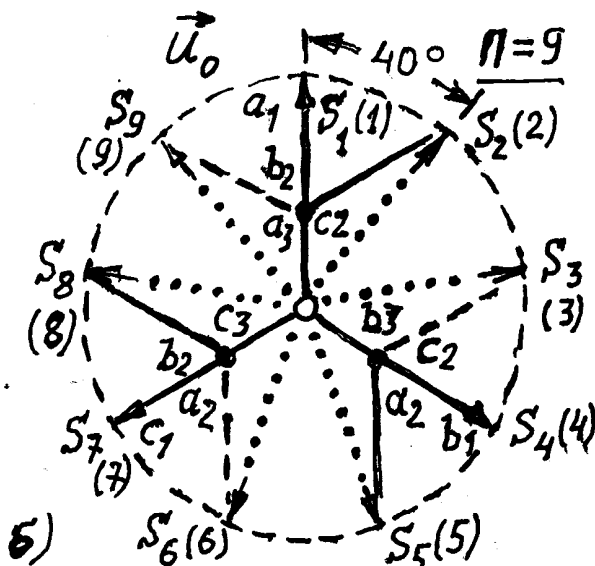
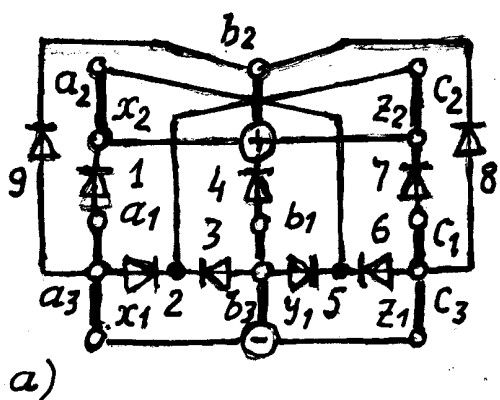


$\Pi=9, \chi_2=6, W_{\Sigma 0}=5,754, \kappa_n=6,16\%, K=3, \gamma \approx 9,8; \beta_{LC} \approx 80$

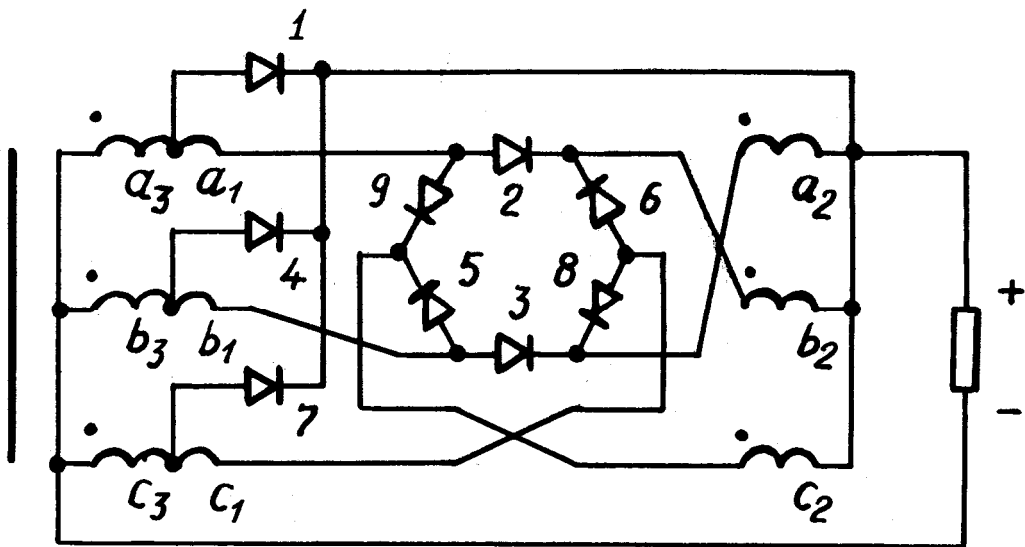
Схема КП-9(1)



$\Pi=9, \chi_2=6, W_{\Sigma 0} = ; \kappa_n=6,16\%, \beta_{LC} \approx 80$

Схема КП-9

¹ См. стр. 1-40/52 /1-50/ в econf.rae.ru/article/9968. ..19978. ..19979. ..19990.



$\Pi=9, \psi_2=6, W_{20}=5,754; k_{\Pi}=6,16\%, K=3; \gamma \approx 3; \beta_{LC} \approx 80 \div 30$

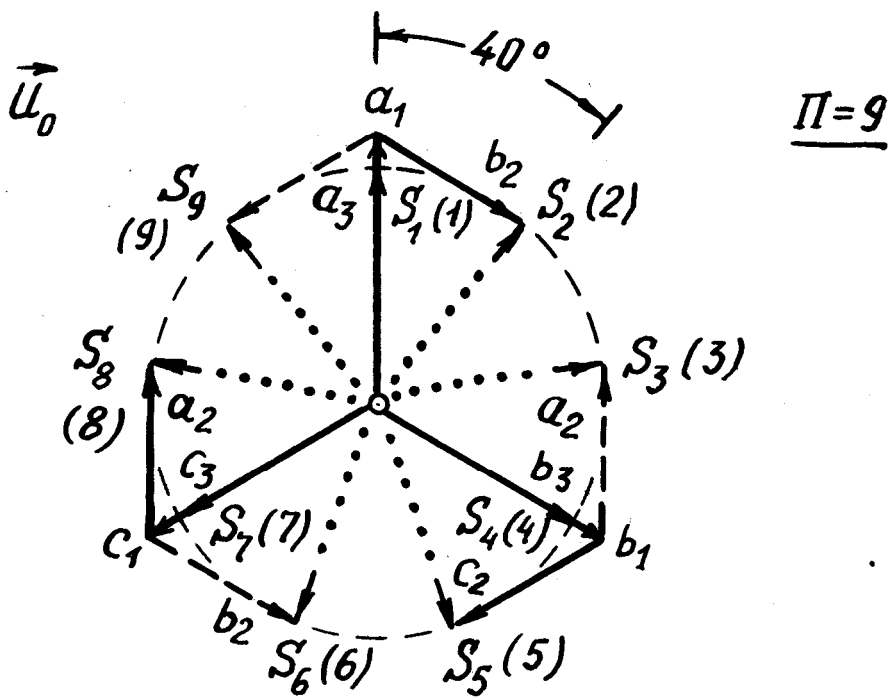


Схема КЛ-9(2)

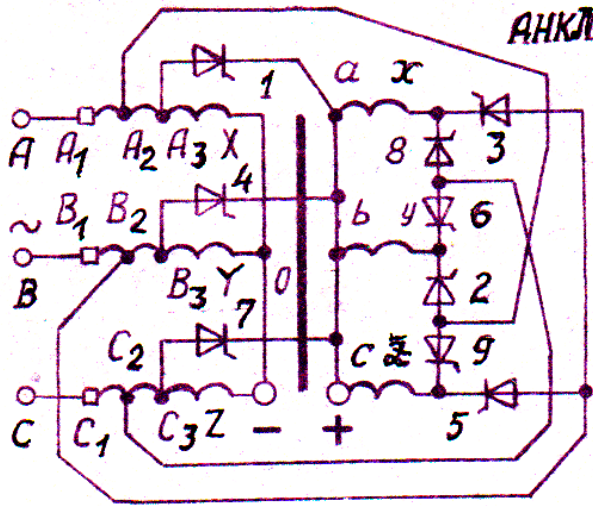


Схема АКЛ-9(1)

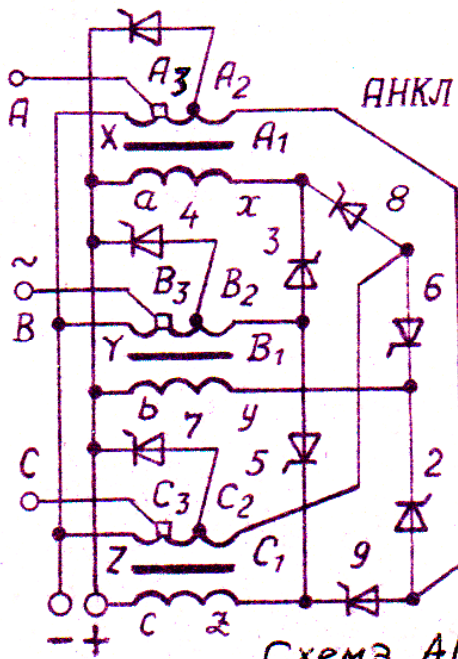
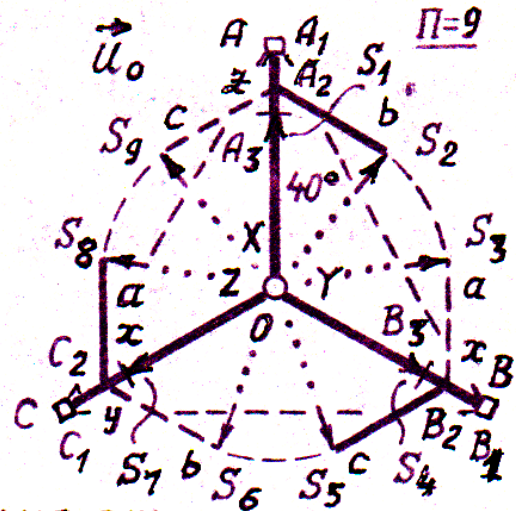


Схема АКЛ-9(2)

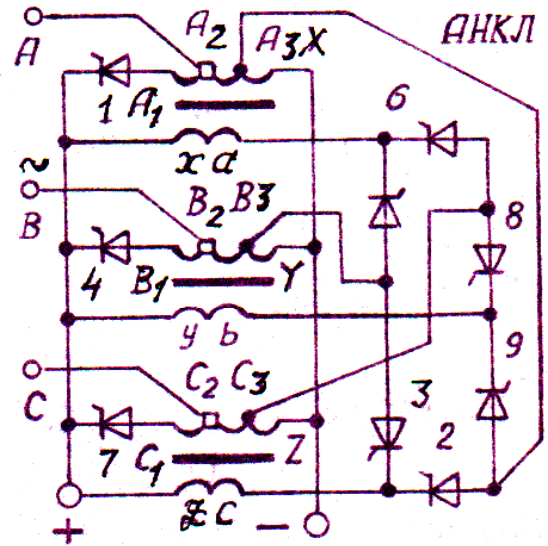


Схема АКЛ-9(3)

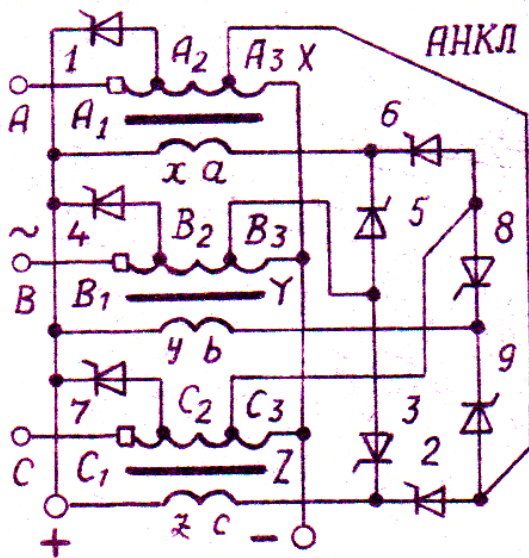


Схема АКЛ-9(4)

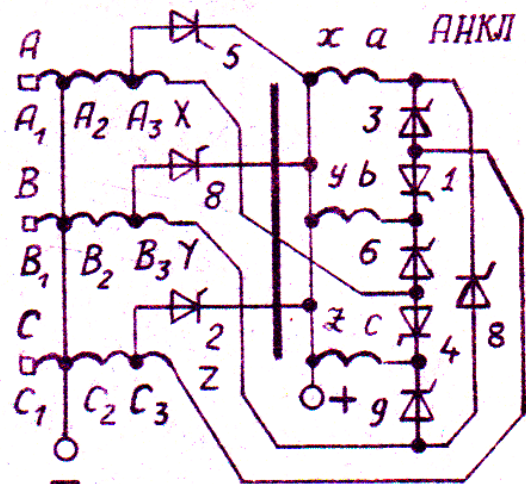


Схема АКЛ-9(5)

Группа Н9. Подгруппа НМ:

Мельничные НВ ВИП

См. также схемы соответствующих отдельных ступеней в ВВ ВИП подгруппы ВФ , например, схемы ВФ-12(4мц), ВФ-18(9мц), ВФ-24(12кмц), ВФ-48(24кмц)

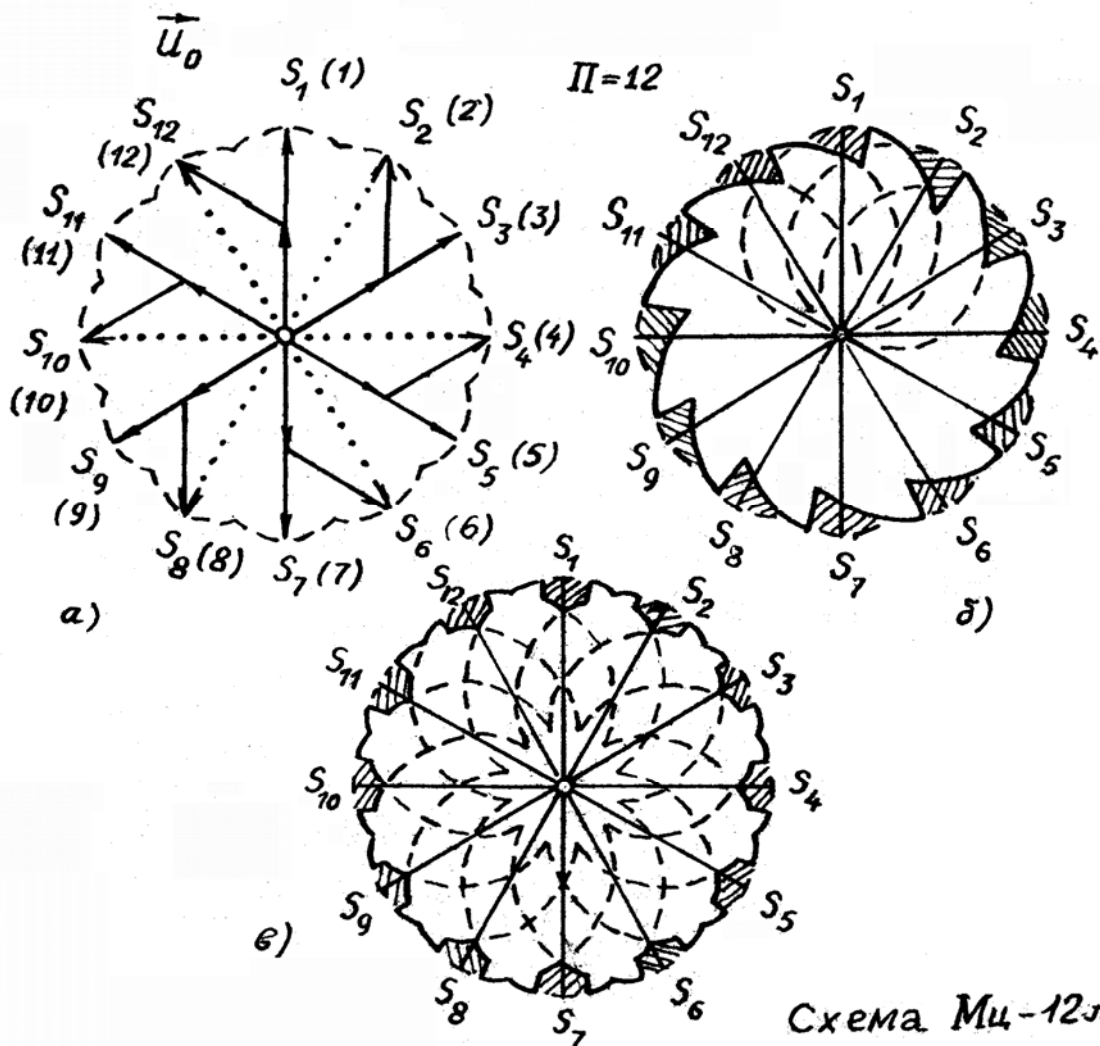
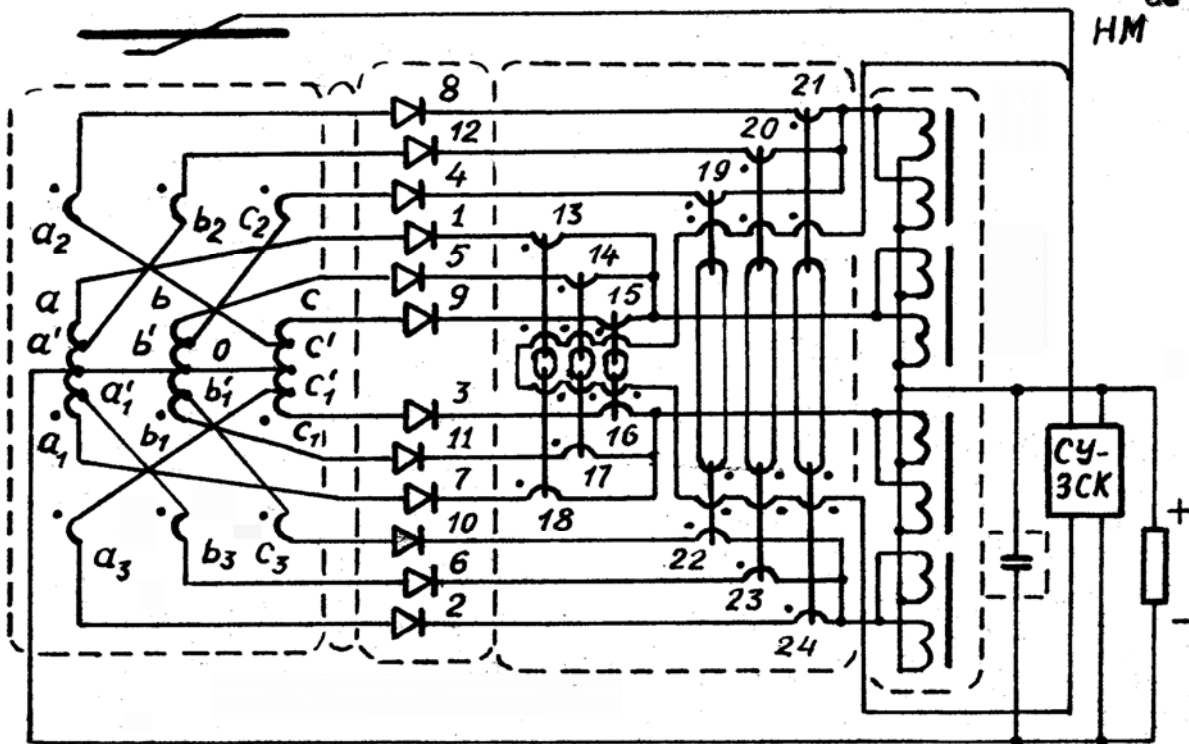
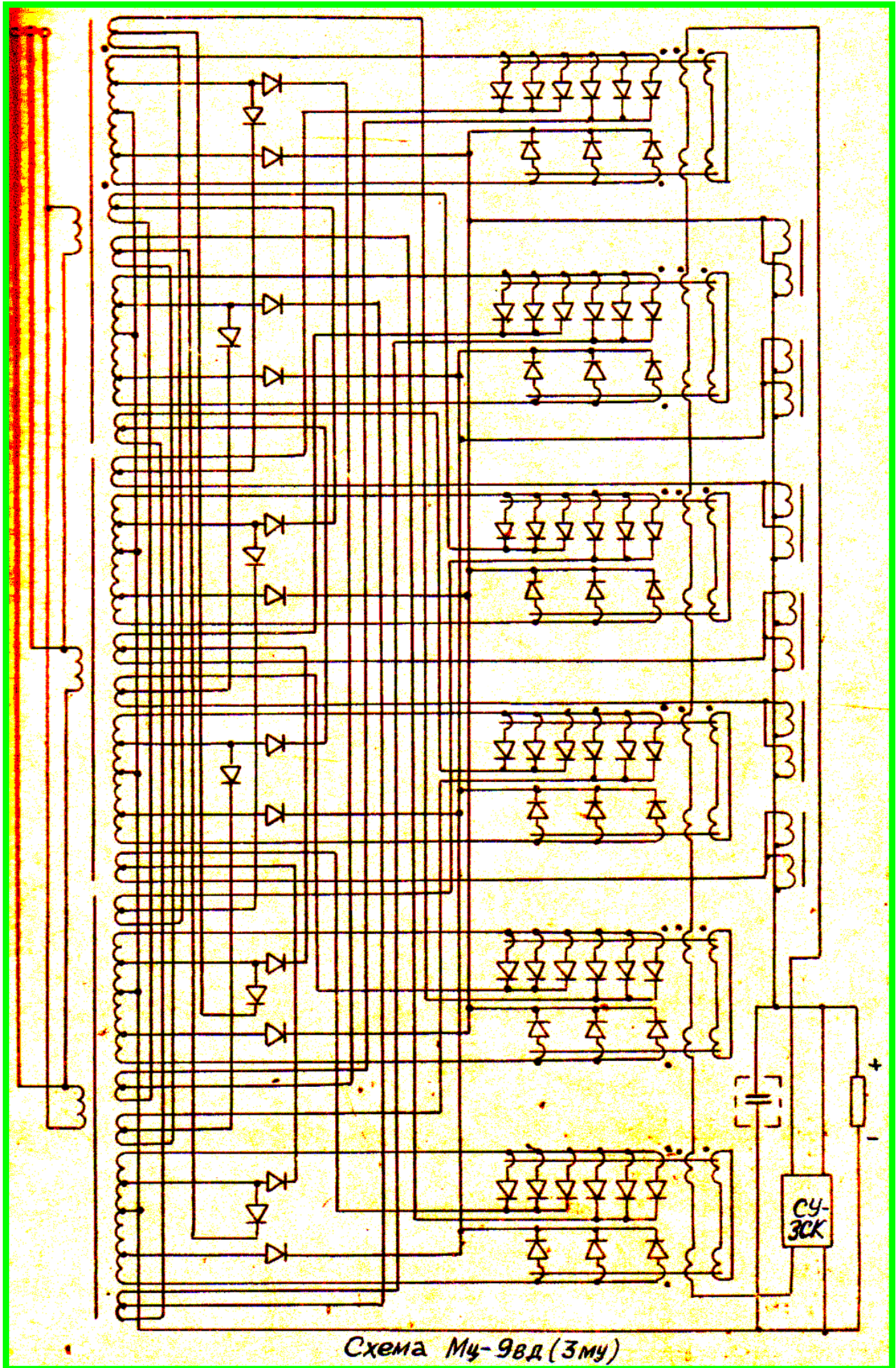


Схема Мц-12лму



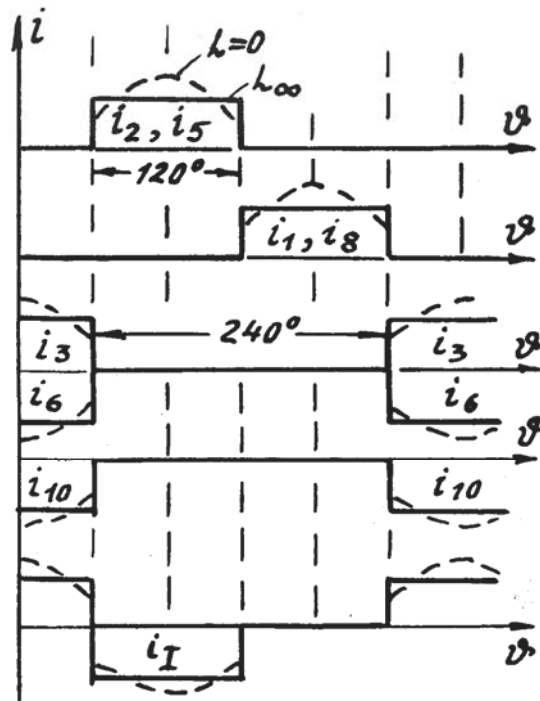
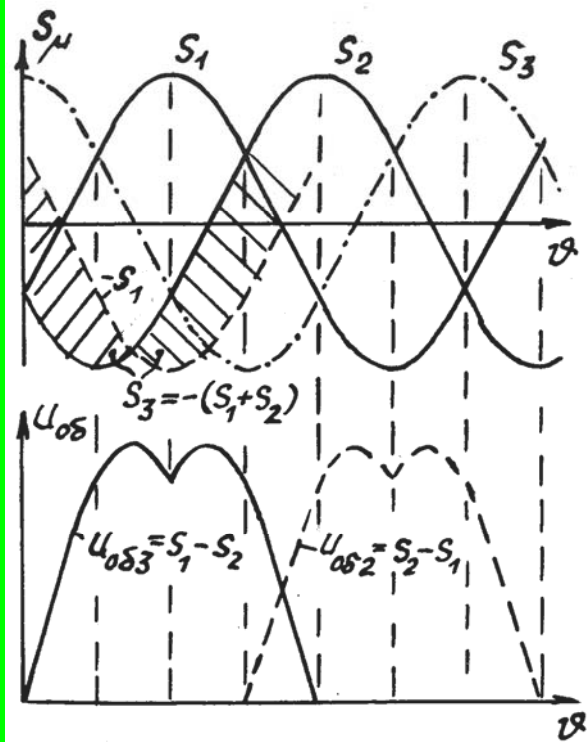
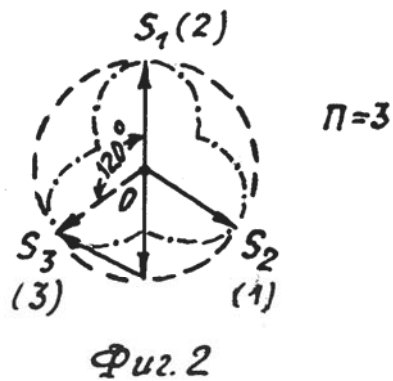
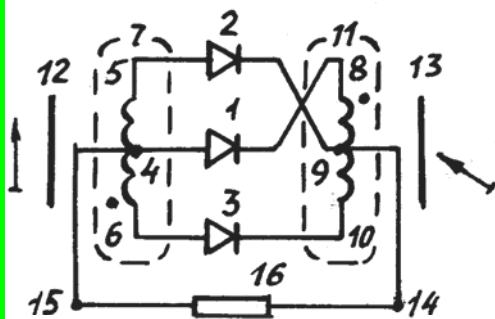
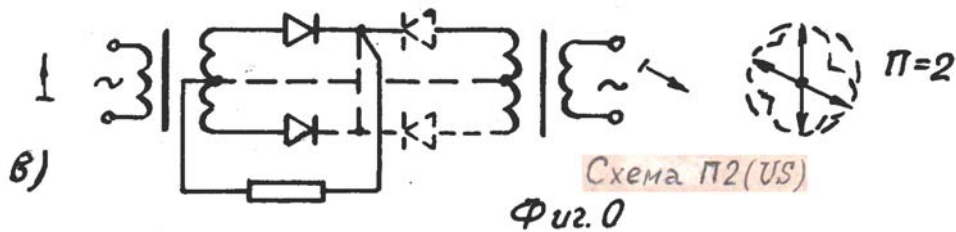
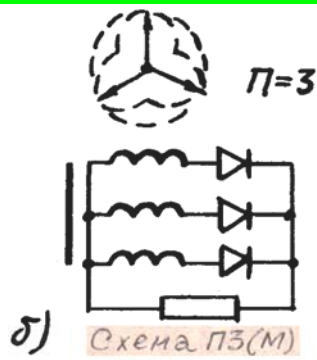
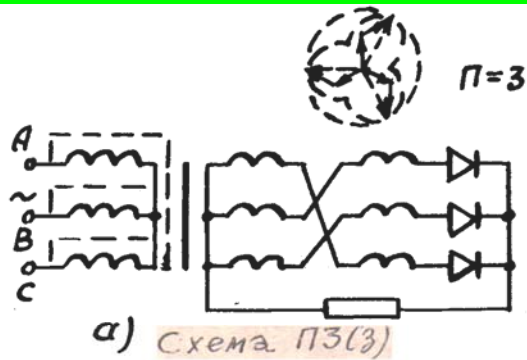
Группа Н

10. Подгруппа НV:

V-образные НВ ВИП

10.1. Вид НVЛ: Лучевые V-образные НВ ВИП

В том числе с вольт-добавкой, магнитоуправляемые и др.



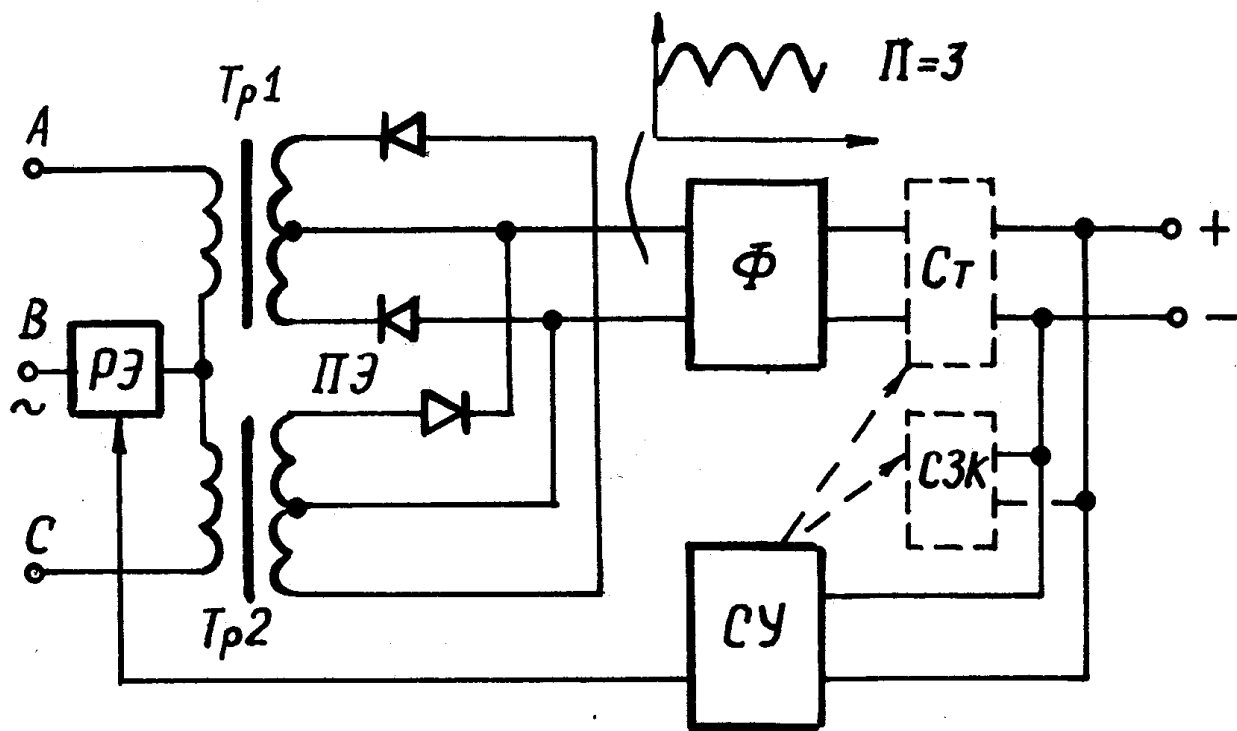


Схема ПЗ(1)

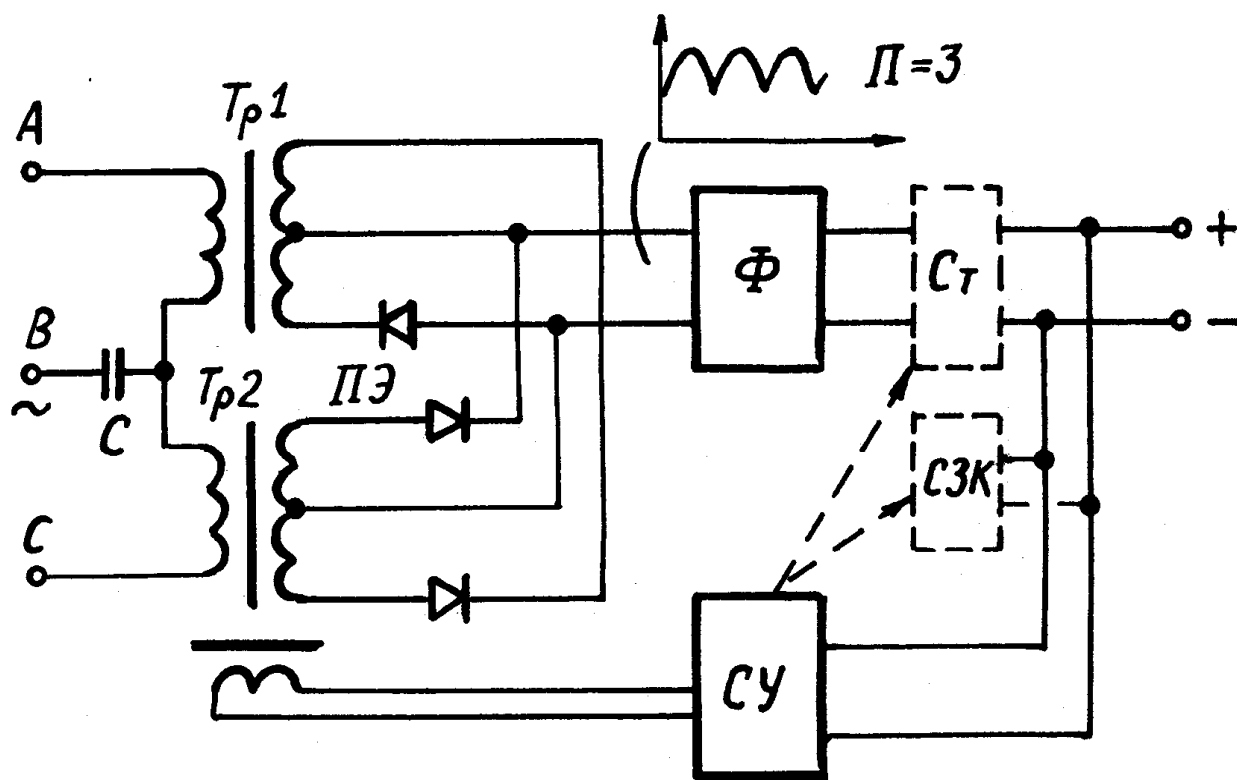


Схема ПЗ(2)

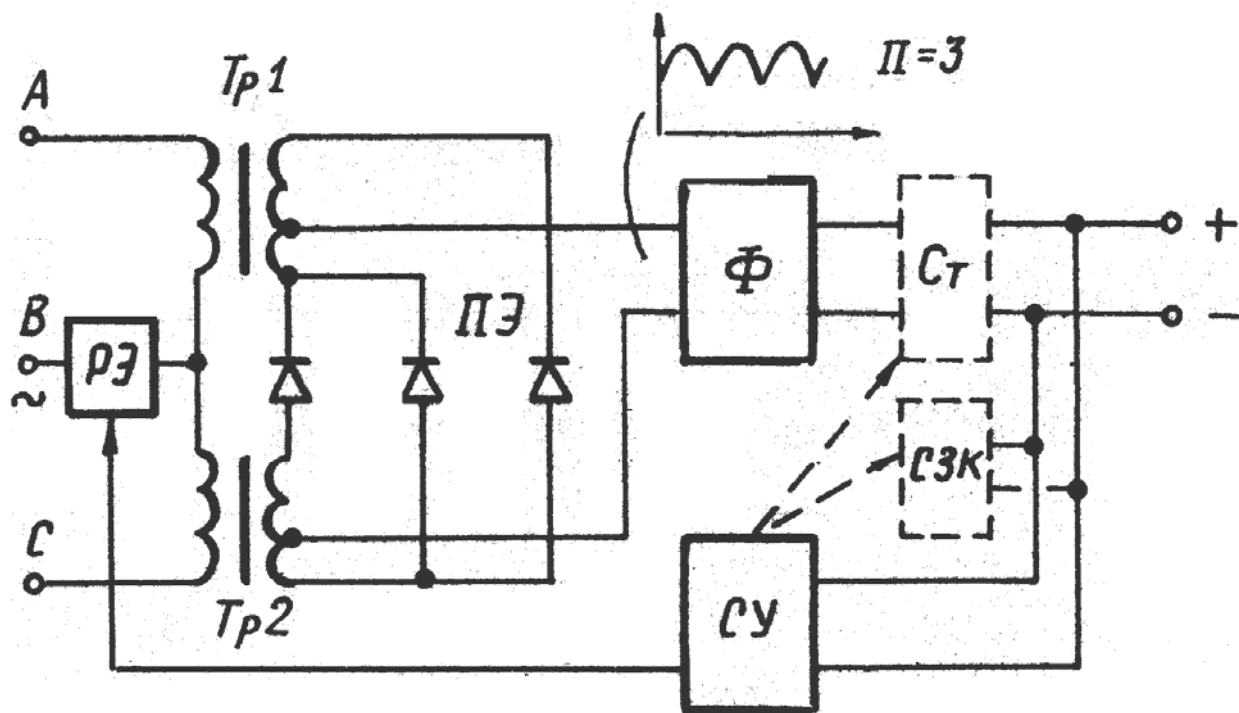


Схема ПЗ(4)

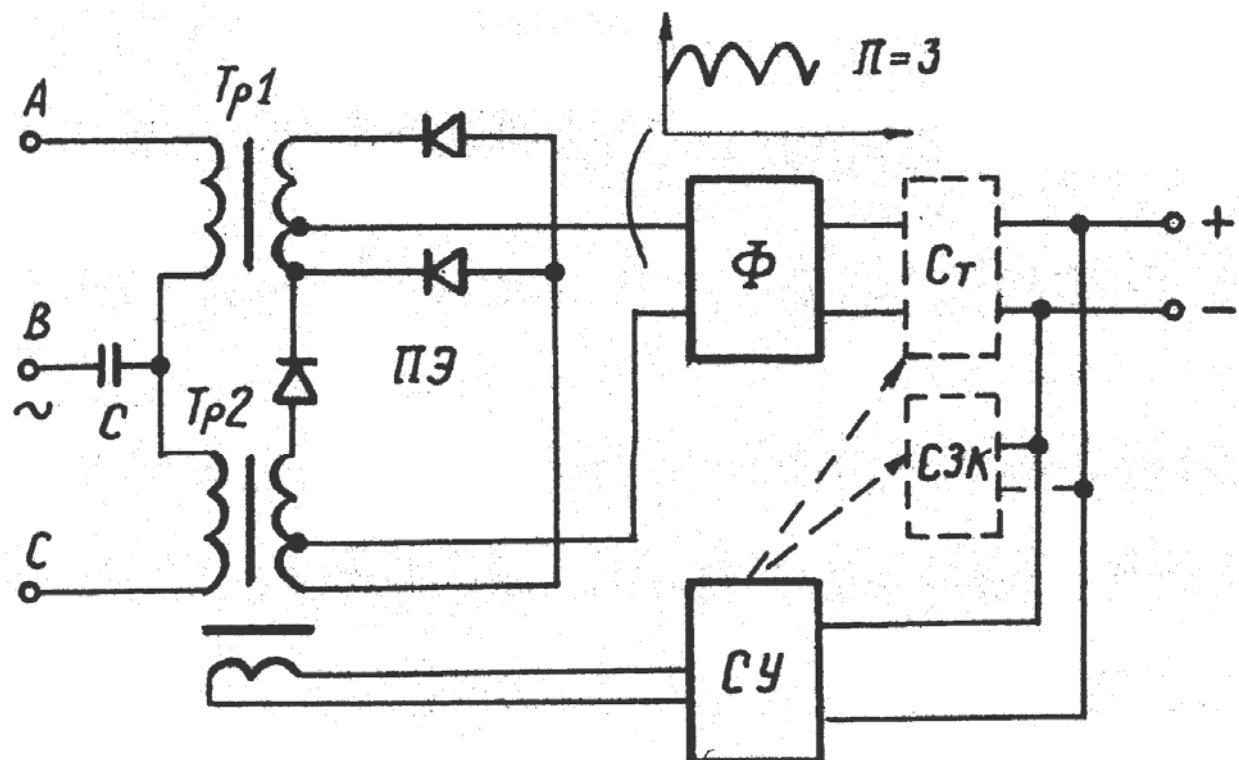
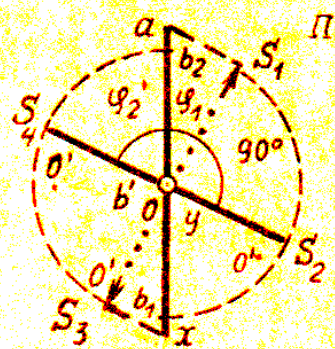
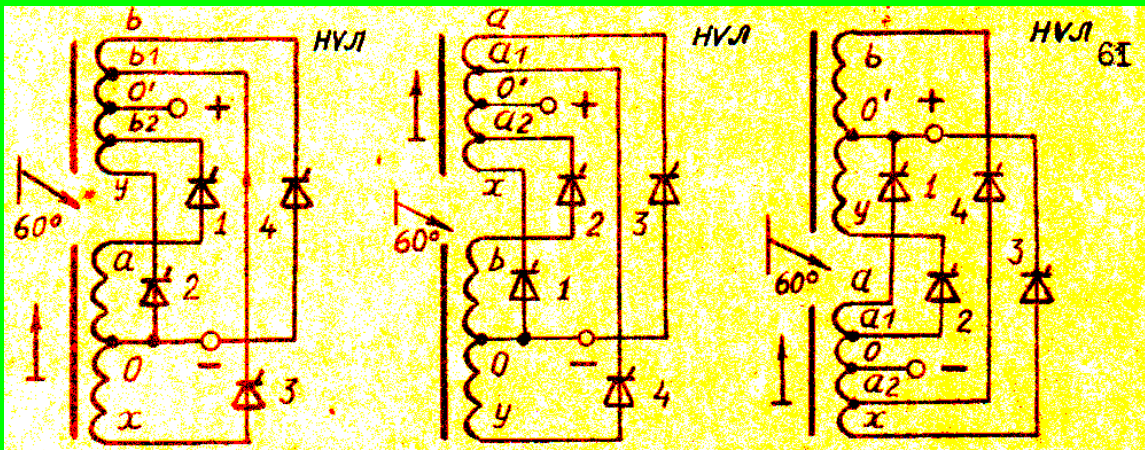
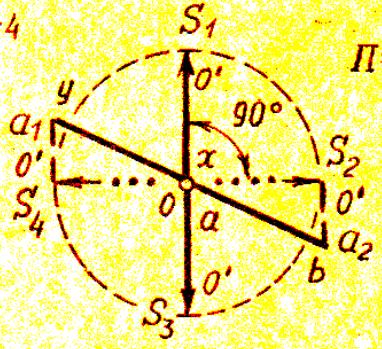


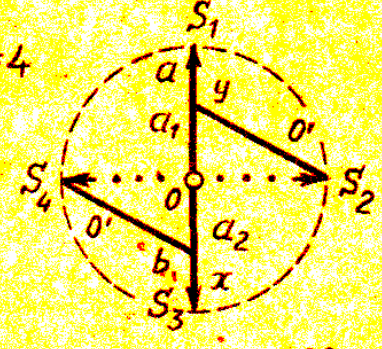
Схема ПЗ(5)



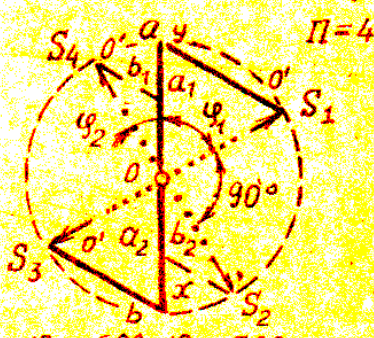
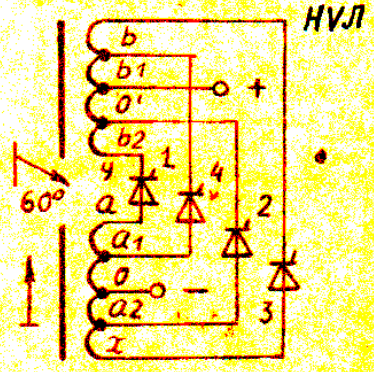
$\varphi_1 = 30^\circ, \varphi_2 = 60^\circ$
 $b_0' : b b_1 = 1 : 1/\sqrt{3}$
 $b : a = 1 : 2/\sqrt{3}$
 $W_{\Sigma a} = 2(1 + 2/\sqrt{3}) \approx 4,31$
 Схема П4(1)



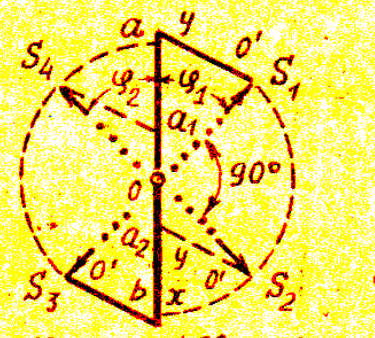
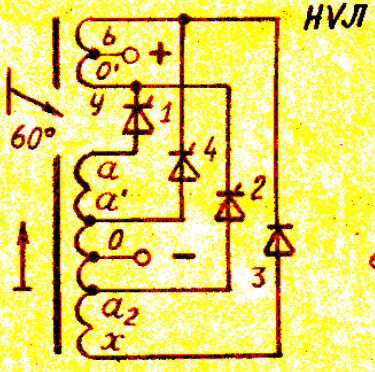
$a \leftrightarrow b$
 $a_0' : a a_1 = 1 : 1/\sqrt{3}$
 $a : b = 1 : 2/\sqrt{3}$
 $W_{\Sigma a} = 2(1 + 2/\sqrt{3}) \approx 4,31$
 Схема П4(2)



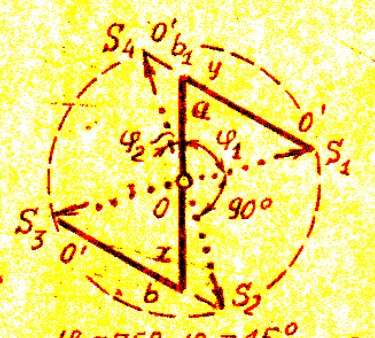
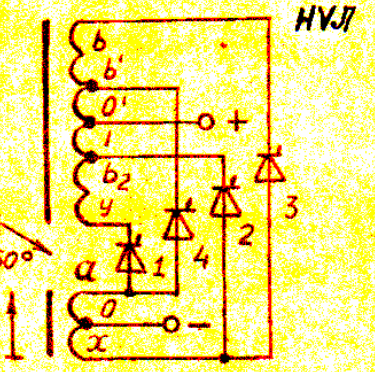
$\varphi_1 = 90^\circ, \varphi_2 = 0^\circ$
 $a_0' : a, 0 = 1 : 1/\sqrt{3}$
 $a : b = 1 : 2/\sqrt{3}$
 $W_{\Sigma a} = 2(1 + 2/\sqrt{3}) \approx 4,31$
 Схема П4(3)



$\varphi_1 = 60^\circ, \varphi_2 = 30^\circ$
 $a : b = 1 : 1, W_{\Sigma a} = 4$
 Схема П4(4)



$\varphi_1 = \varphi_2 = 45^\circ; a : b =$
 $= (\sqrt{3} + 1)/\sqrt{6} \approx \sqrt{2}/3$
 $W_{\Sigma a} = \sqrt{2}(\sqrt{3} + 1) \approx 3,864$
 Схема П4(5)



$\varphi_1 = 75^\circ, \varphi_2 = 15^\circ$
 $a : b = \sqrt{2}/3 \approx (\sqrt{3} + 1)/\sqrt{6}$
 $b b_1 : b_0' = 1 : (\sqrt{3} + 1)/2$
 $W_{\Sigma a} \approx 3,864$
 Схема П4(6)

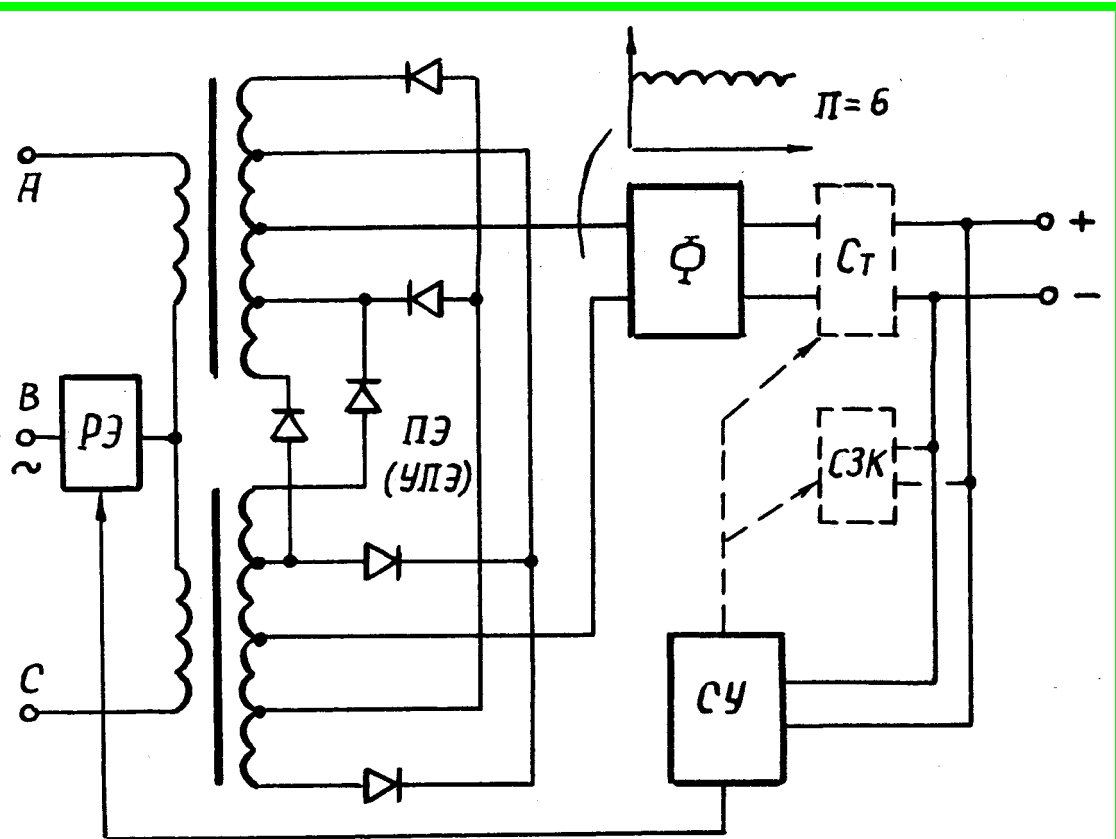


Схема ПБ(5)

Z-луч

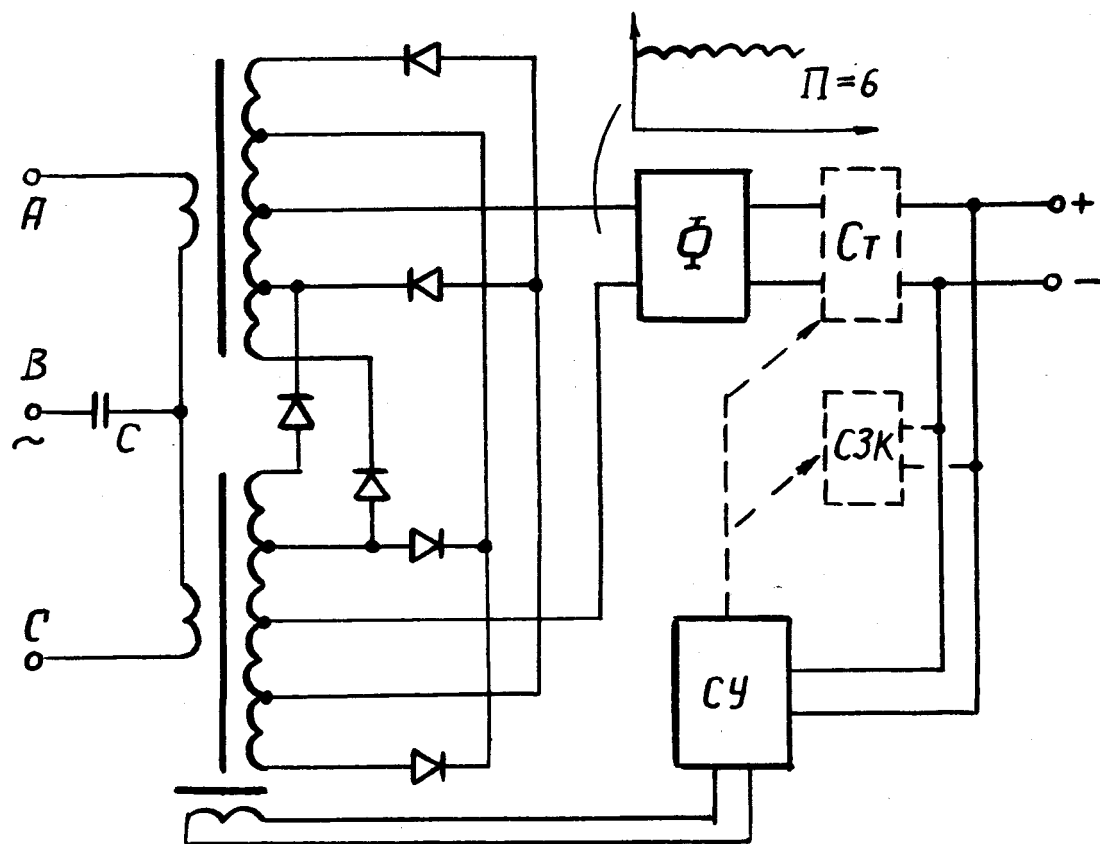
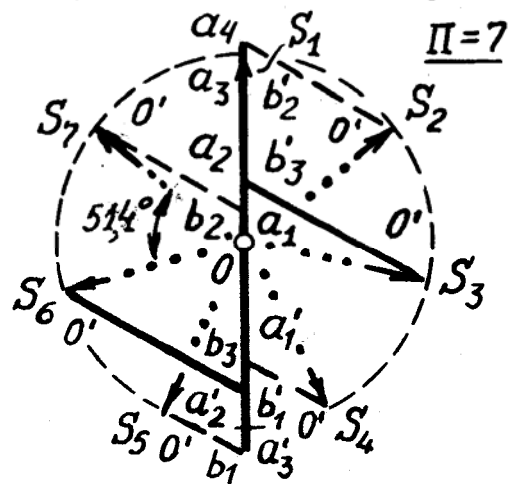
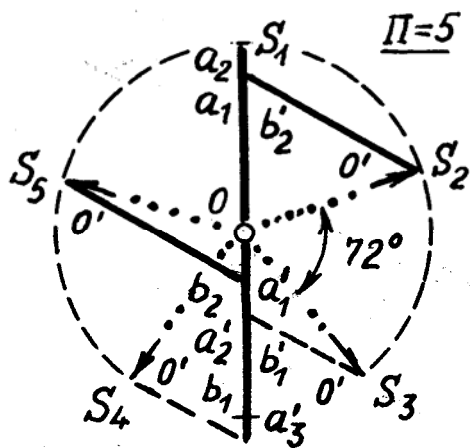
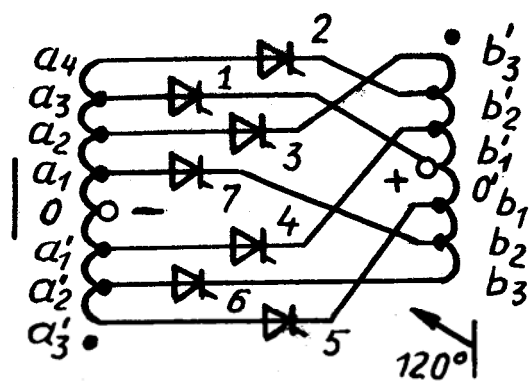
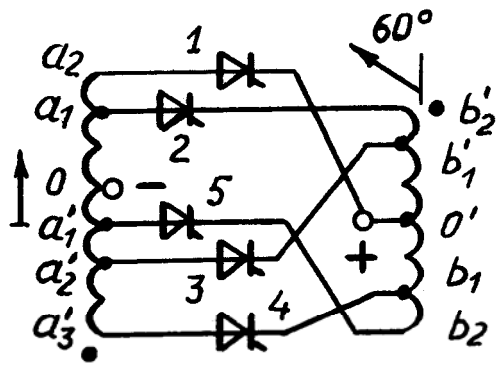


Схема ПБ(6)

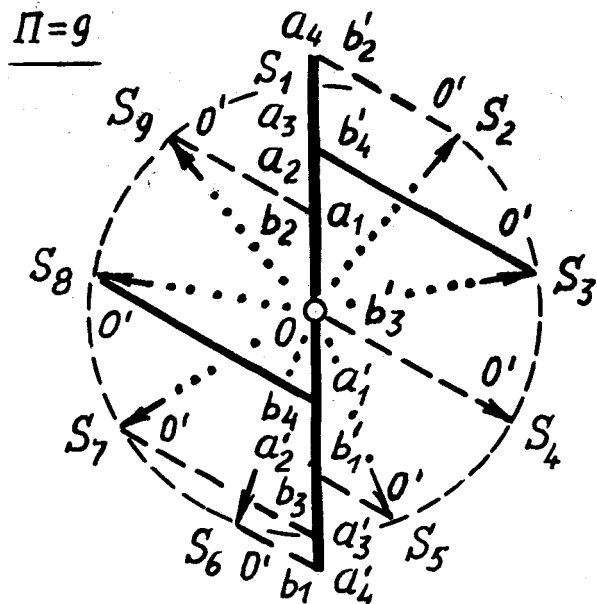
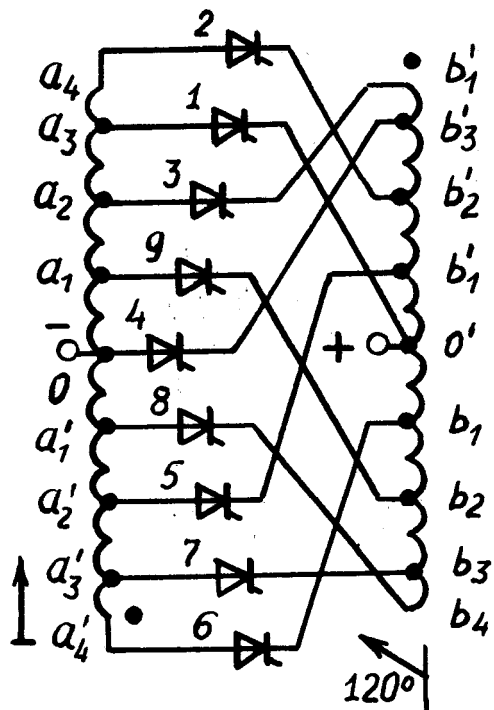
ZM-луч



$a_1 : a_2 : a'_1 : a'_2 : a'_3 : (b_1 = b'_1) : (b_2 = b'_2) \approx$
 $0,858 : 1 : 0,24 : 0,47 : 1,148 : 0,679 : 1,1016$
 $U_2 = 2, W_{\Sigma a} \approx 4,35$

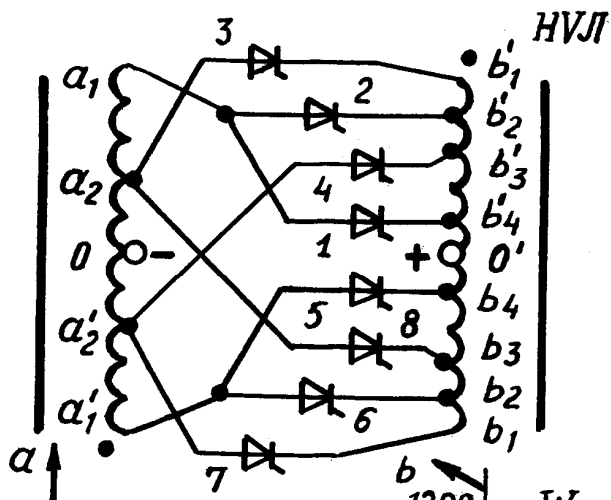
Схема $\Pi 5(1)$

Схема $\Pi 7(1)$

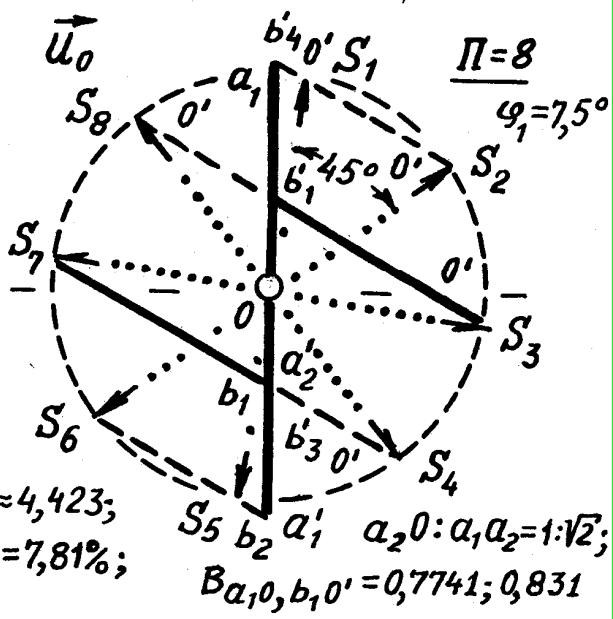


$a_1 : a_2 : a_3 : a_4 = 0,395 : 0,73 : 1 : 1,137$
 $U_2 = 2, W_{\Sigma a} \approx 4,55$

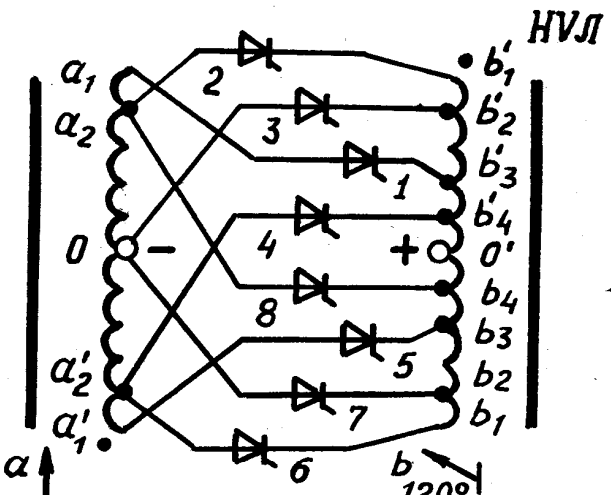
Схема $\Pi 9(1)$



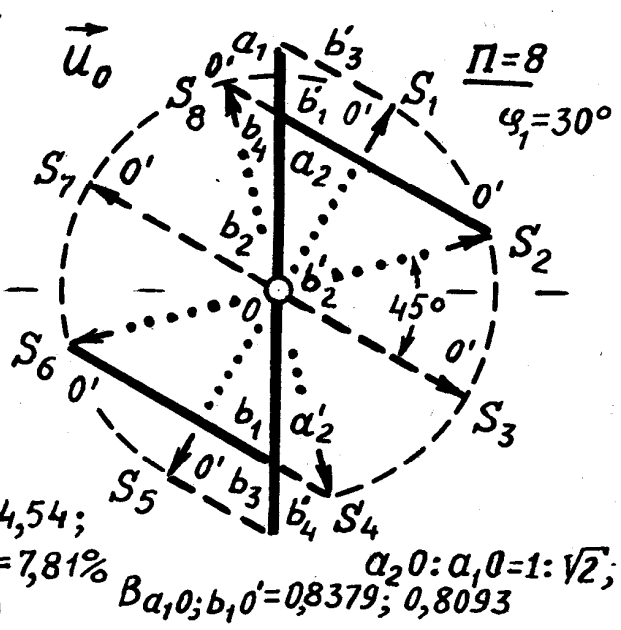
$u_2=2; m_H=2; W_{2a} \approx 4,423;$
 $\varphi_{ab}=120^\circ; \Pi=8; B=8; B_H=1; \kappa_H=7,81\%;$
 Схема VP-8(1)



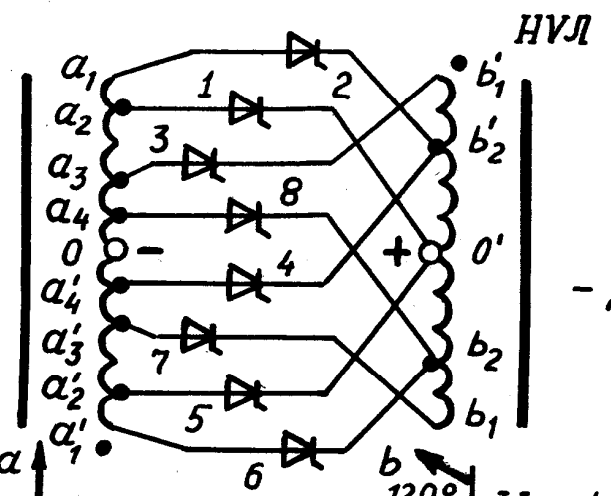
$\frac{\Pi=8}{\varphi_1=7,5^\circ}$
 $a_2 0: a_1 a_2 = 1:\sqrt{2};$
 $B_{a_1 0, b_1 0'} = 0,7741; 0,831$



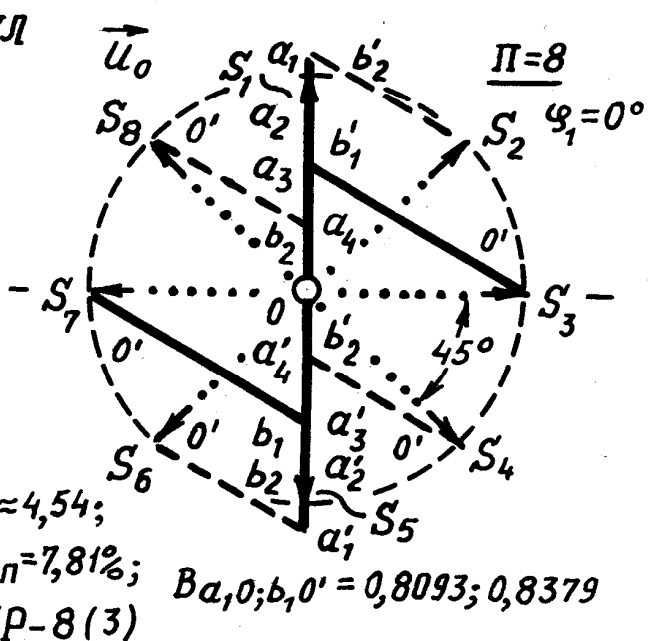
$u_2=2; m_H=2; W_{2a} \approx 4,54;$
 $\varphi_{ab}=120^\circ; \Pi=8; B=8; B_H=1; \kappa_H=7,81\%$
 Схема VP-8(2)



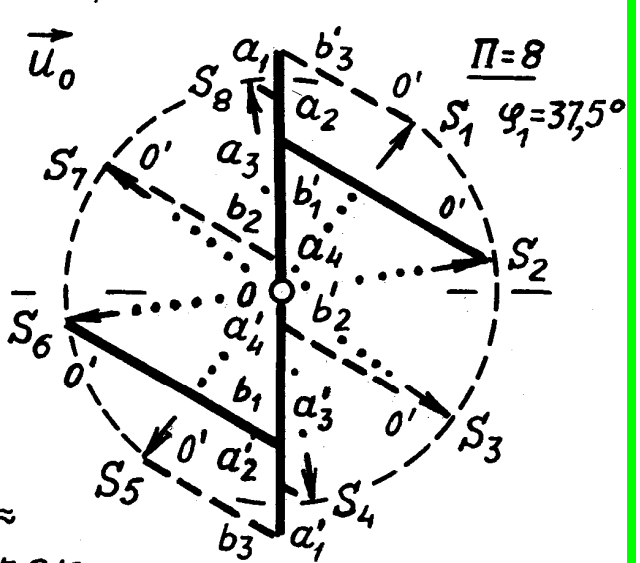
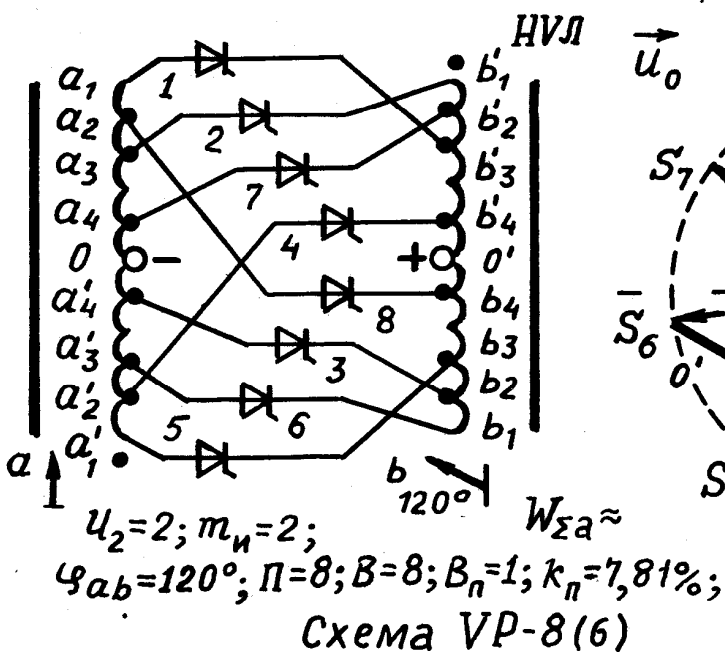
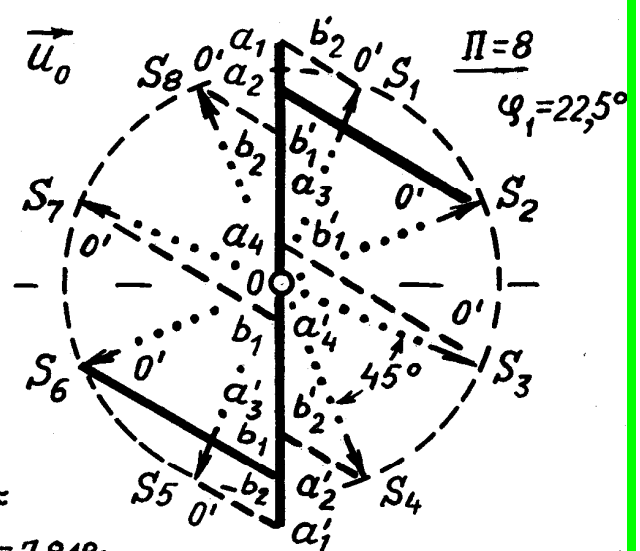
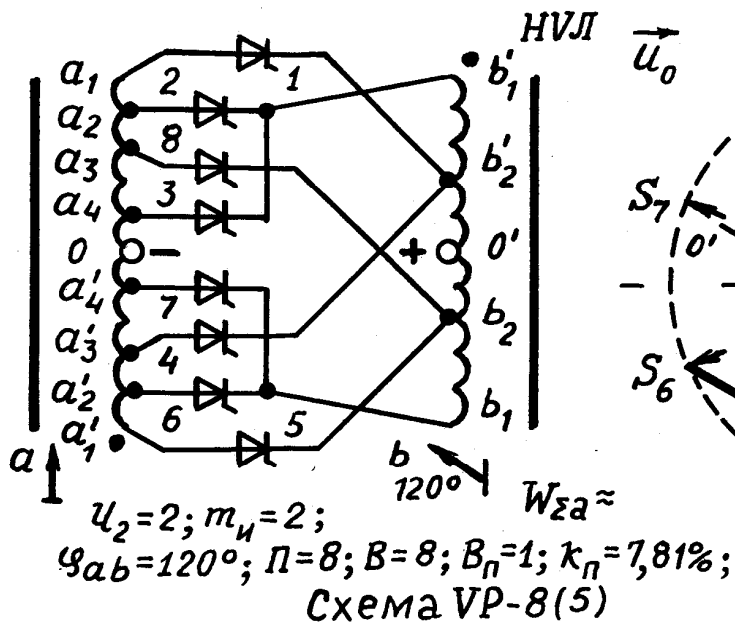
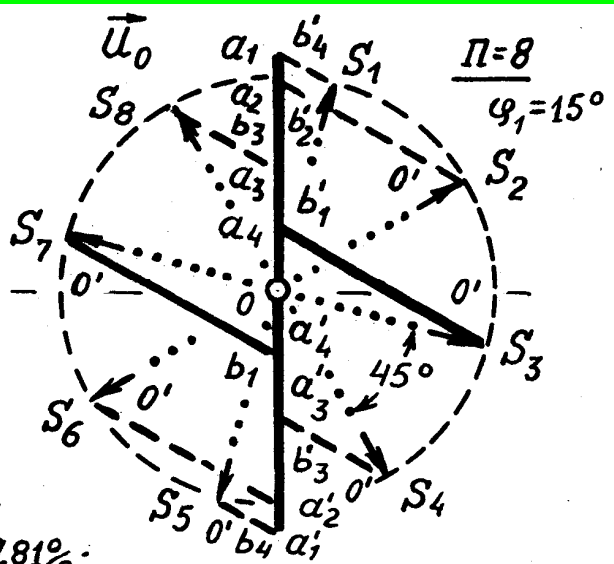
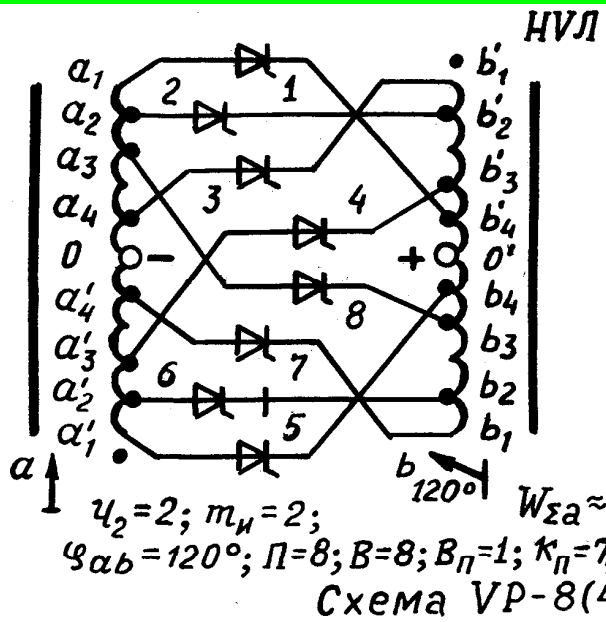
$\frac{\Pi=8}{\varphi_1=30^\circ}$
 $a_2 0: a_1 0 = 1:\sqrt{2};$
 $B_{a_1 0, b_1 0'} = 0,8379; 0,8093$



$u_2=2; m_H=2; W_{2a} \approx 4,54;$
 $\varphi_{ab}=120^\circ; \Pi=8; B=8; B_H=1; \kappa_H=7,81\%;$
 Схема VP-8(3)



$\frac{\Pi=8}{\varphi_1=0^\circ}$
 $B_{a_1 0, b_1 0'} = 0,8093; 0,8379$



Группа Н

Подгруппа НV

Вид НVЛ

Ю.І.І. Подвид НVЛС:
Лучевые V-образные НВ ВИП с синфазной
управляемой вольт-добавкой

На примере схем с $\Pi = 3$

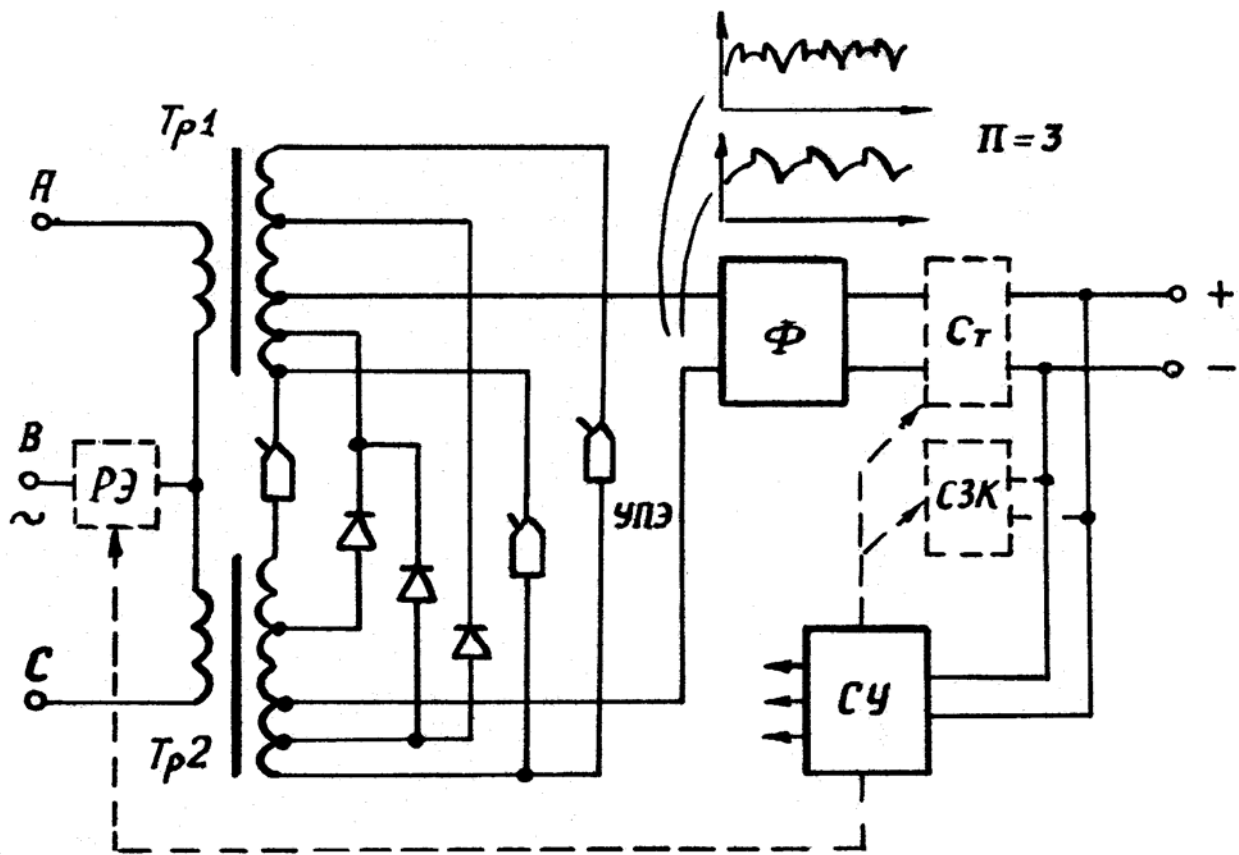


Схема ПЗ(8)

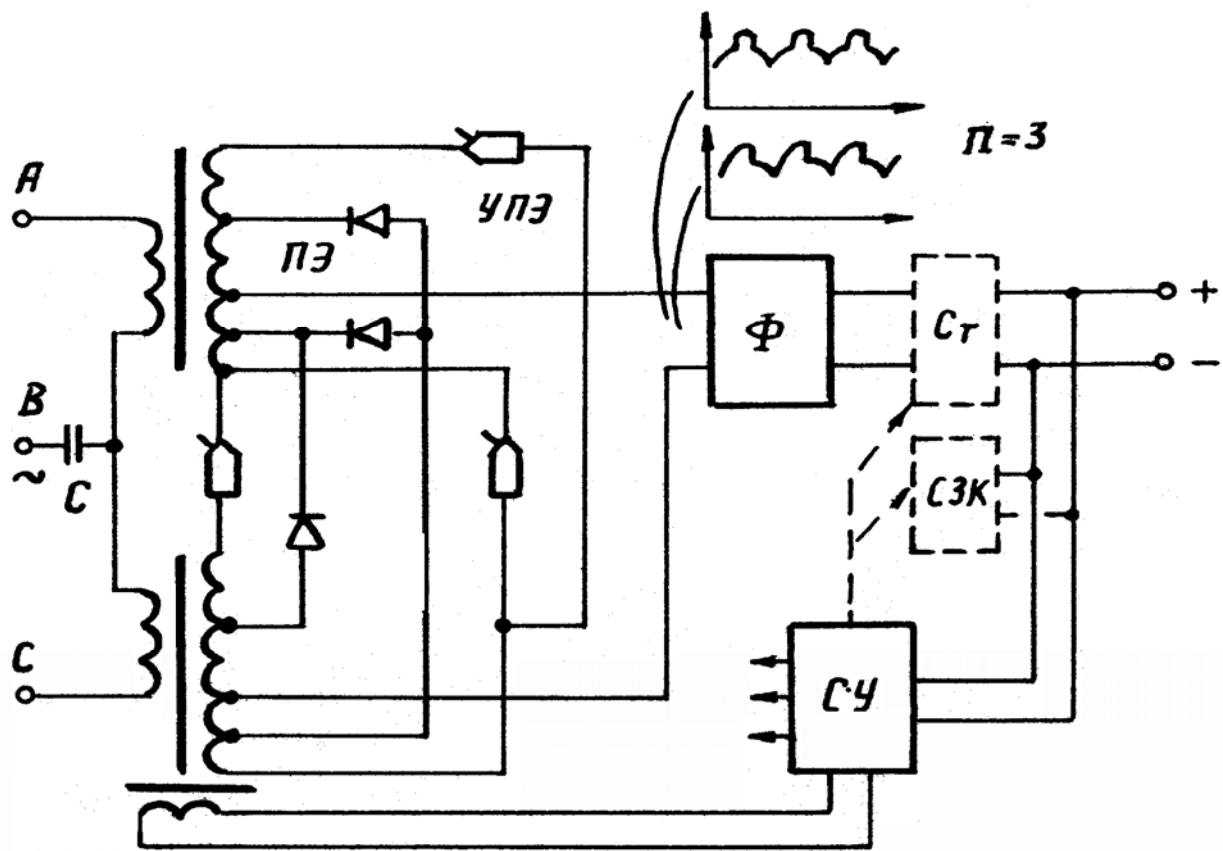


Схема ПЗ(9)

Группа Н

Подгруппа HV

10.2. Вид HVK:

Кольцевые V-образные НВ ВИП

На примере схем с $\Pi = 6, 12, 18$

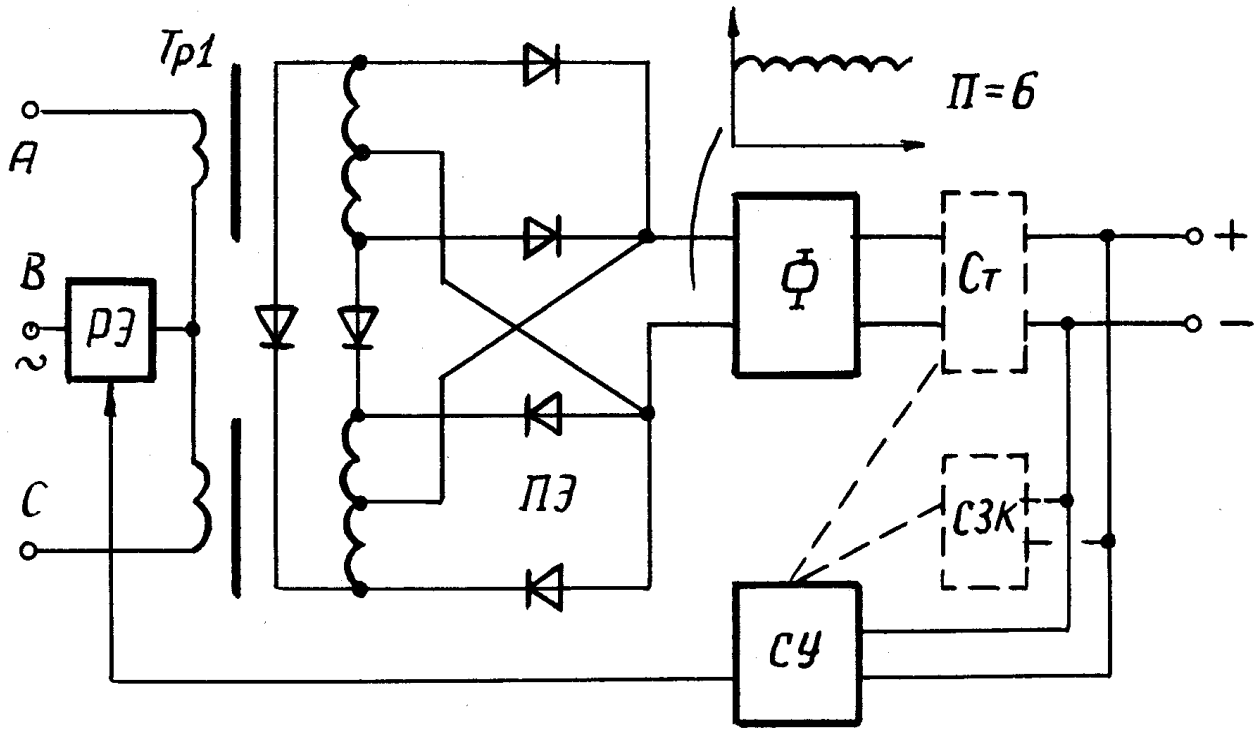


Схема ПБ(1)

"Р-луч"

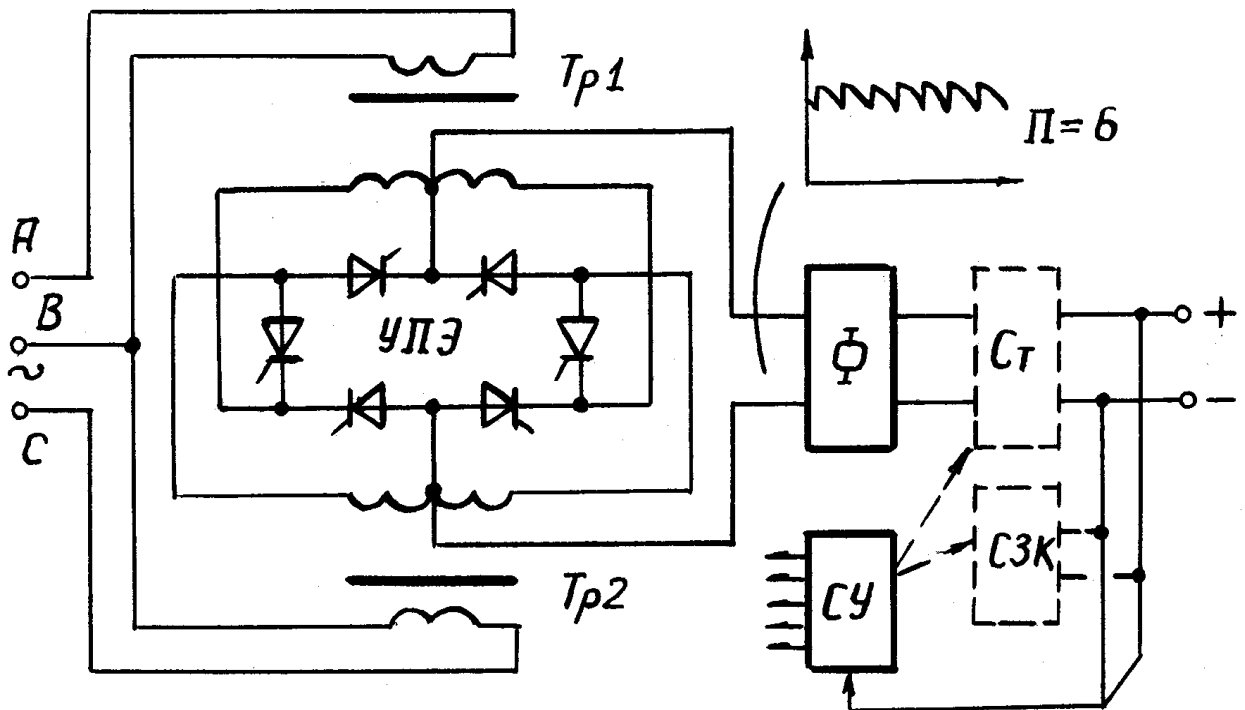


Схема ПБ(2)

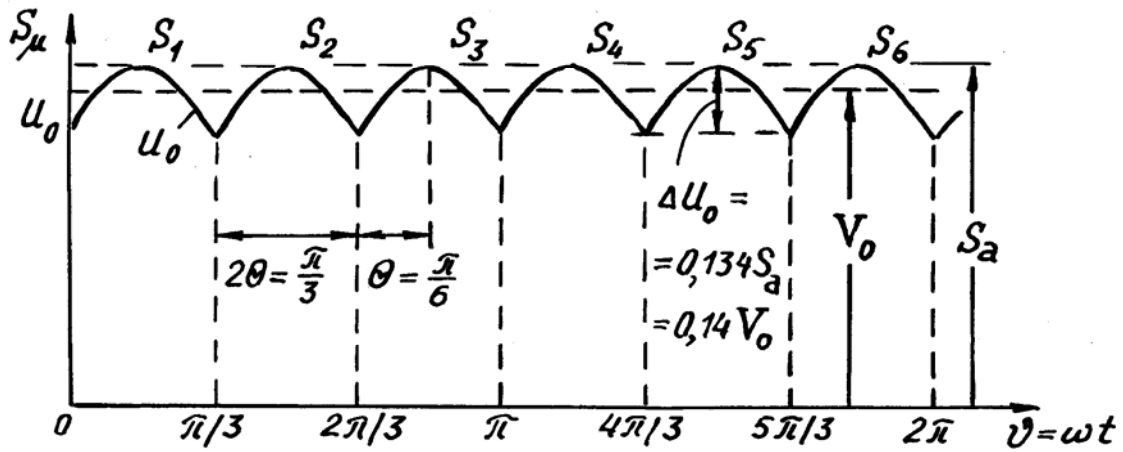
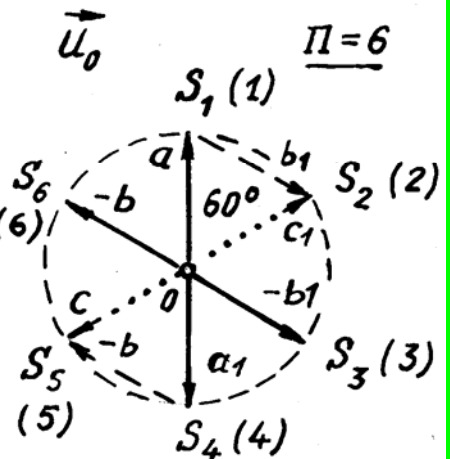
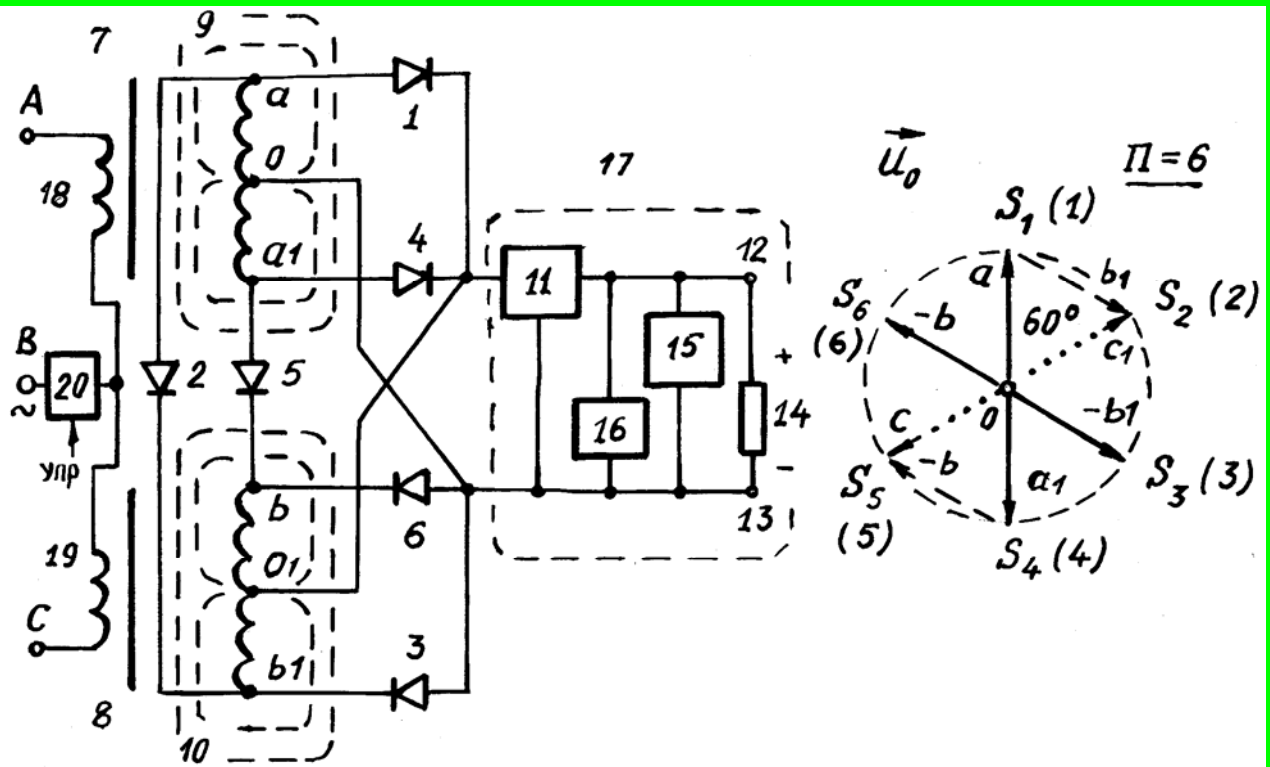


Схема П6(5')

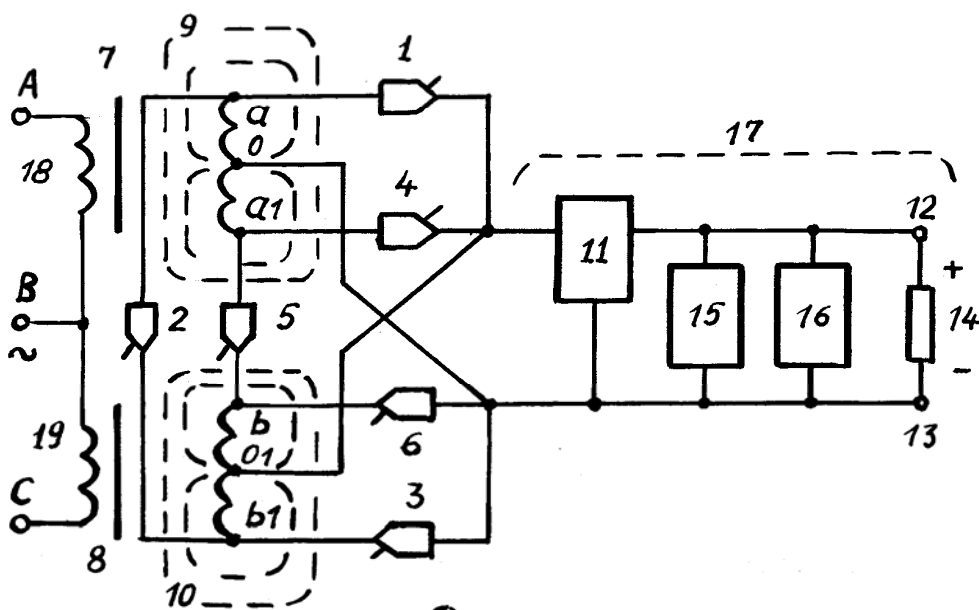
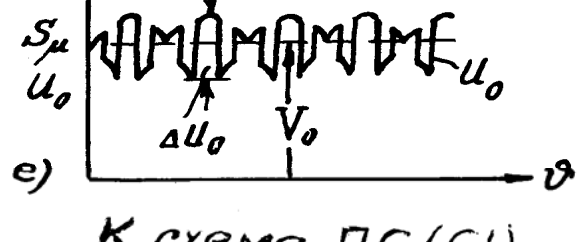
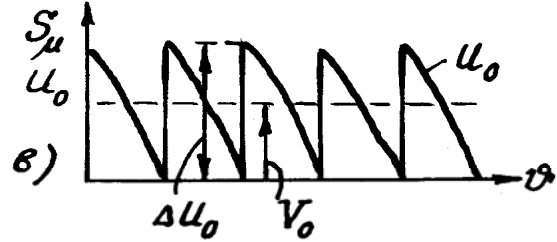
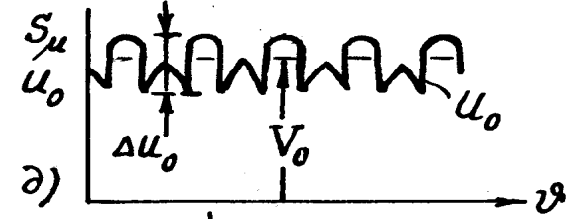
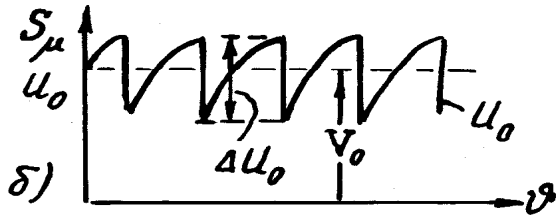
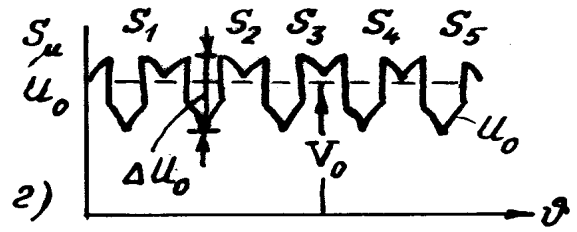
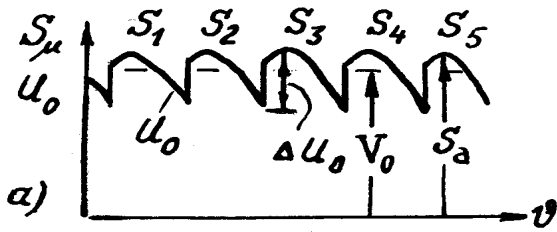


Схема П6(6')



К схеме П6 (6')

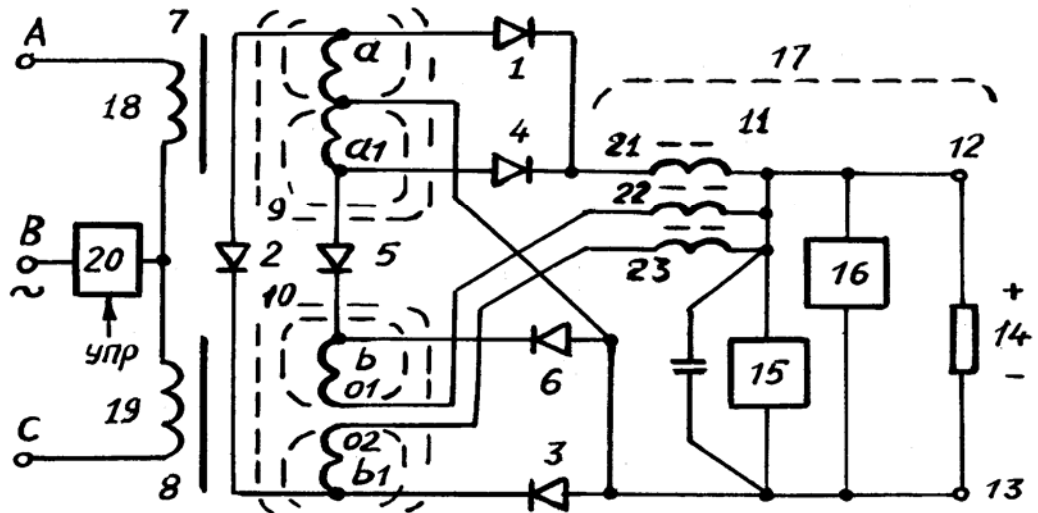


Схема П6 (6'')

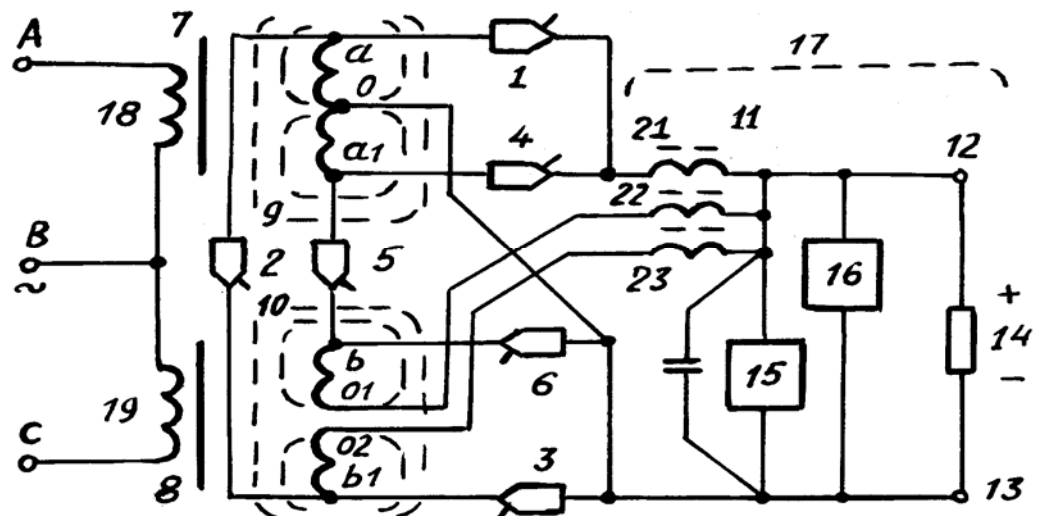
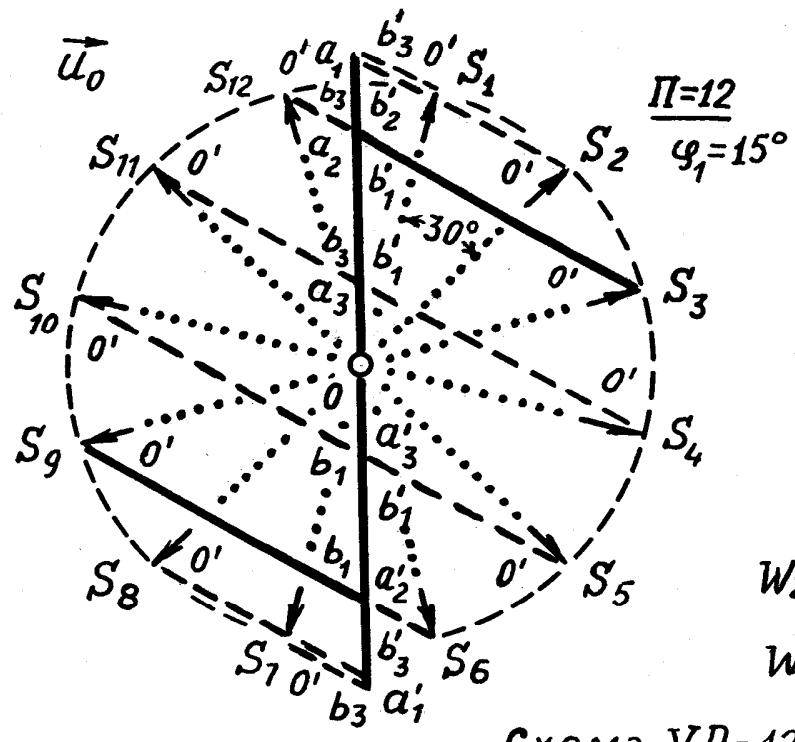
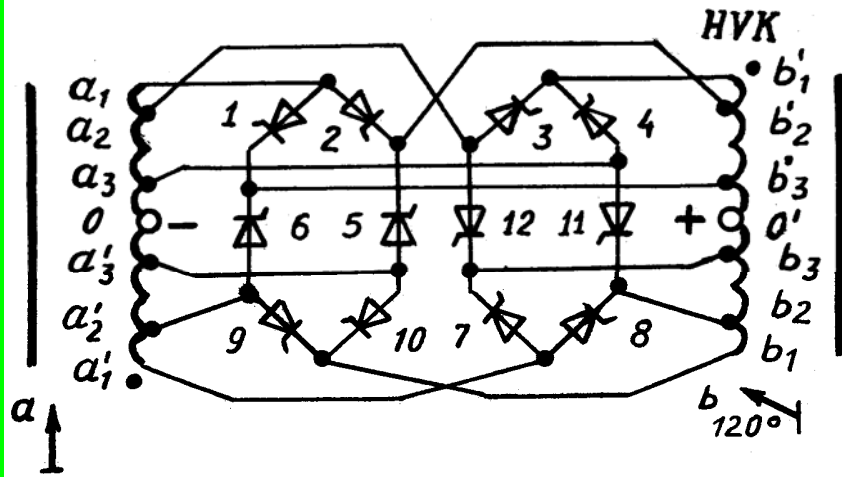


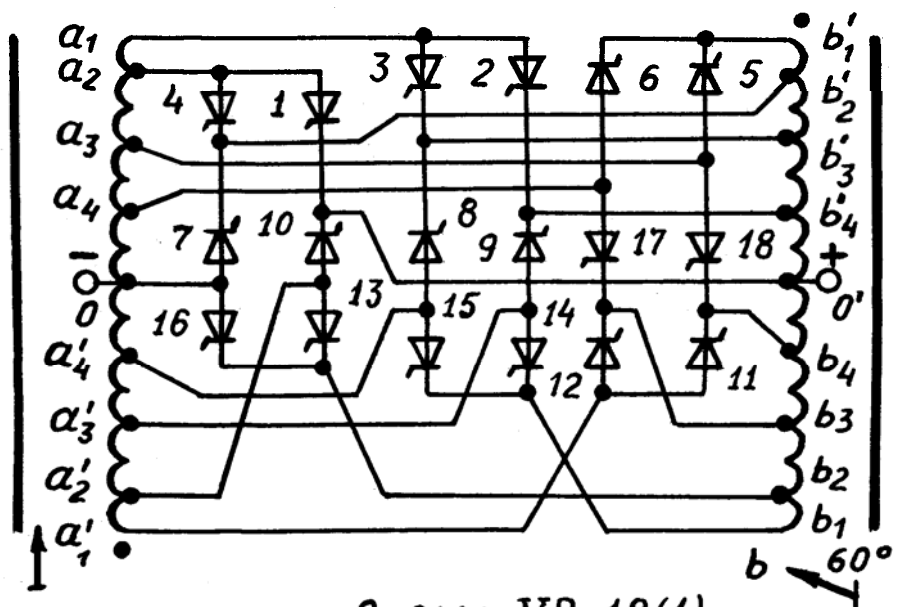
Схема П6 (6y)



$\alpha_i = \alpha'_i = b_i = b'_i;$
 $i = 1, 2, 3;$
 $(a_1, a_2 = a_3, 0) : a_2 a_3$
 $= 1 : \sqrt{3}; \varphi_{ab} = 120^\circ;$
 $u_2 = 2; m_u = 2;$
 $B = 12; B_n = 1;$
 $B_{a_1 a_2, a_3 0} : B_{a_2 a_3}$
 $= \frac{\pi}{6\sqrt{3}} : \frac{\pi}{6} = 0,3023 :$
 $0,5236$

$W_{\Sigma a} = 4(\sqrt{3} + 1) / \sqrt{6} \approx$
 $4,4614;$
 $W_{\Sigma 0} = 2\pi(2 + \sqrt{3}) / 3\sqrt{3} \approx$
 $4,5127$

Схема VP-12(1)



$\alpha_i = b_i = \alpha'_i = b'_i;$
 $i = 1, 4;$
 $a_1 : a_2 : a_3 : a_4 =$
 $1,137 : 1 : 0,743 : 0,395;$
 $\varphi_{ab} = 120^\circ; u_2 = 2;$
 $m_u = 2; B = 18;$
 $B_n = 1; k_n \approx 1,53\%;$
 $W_{\Sigma a} \approx 4,55$

Схема VP-18(1)

Продолжение следует.