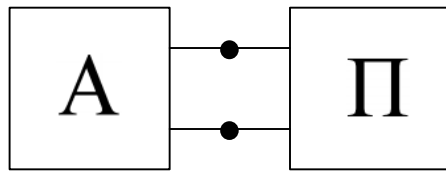


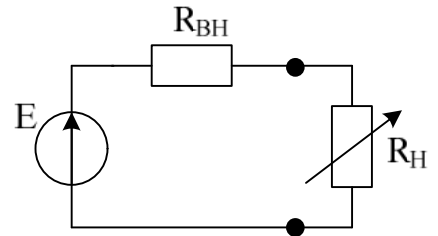
1. ( ) .
2. ( ) .
3. .

7.1.

, , - ( 7.1, ) .  
 ( ) , ( )  
 $R$  ( 7.1, ) .  $R$  - ( )



a)



)

7.1 - )

)

, ,

$R$

:

1.

$I \ll I_{max}, R \gg R$  ( ) .

,

( )  
 2. , ( )  
 $I = 0,5I$  ,  $R = R$  .

7.2.

( 7).  
 :

7.2.1.

,  $R$  ,  
 ( .7.2).  
 $R_2 = 15 + N ( )$ ,  
 $N$   
 $R = 25 + N ( )$ .

R

Multisim

**POTENTIOMETER**  
**POTENTIOMETER** Properties,  
 Increment 2.5%.

Basic



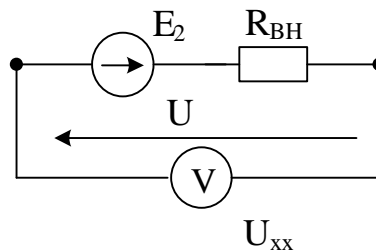
1 kOm.

(Ctrl+M),

7.2.1.1.

Multisim

. 7.2.



7.2 -

2

Multisim (

«Run»).

,  
 $R_2 = 15 + N ( )$ .

$U_{2xx}$

Multisim (

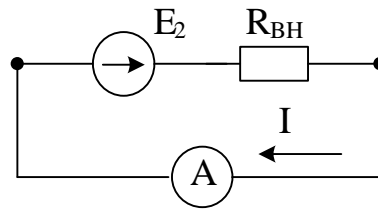
«Stop»).

7.2.1.2.

Multisim

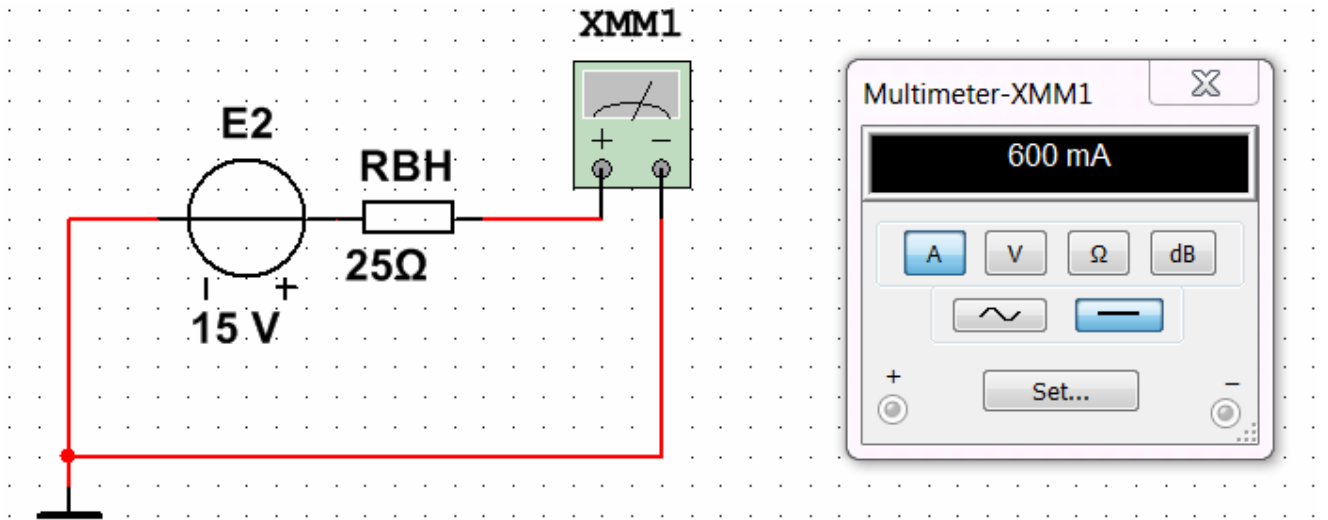
,  
( . 7.4).

. 7.3.



7.3 –

2



7.4 –

Multisim

2

Multisim (

«Run»).

*I*

2.

*I*

. 7.1.

Multisim (

«Stop»).

7.2.1.3.

Multisim

2

*R* ,

. 7.5.

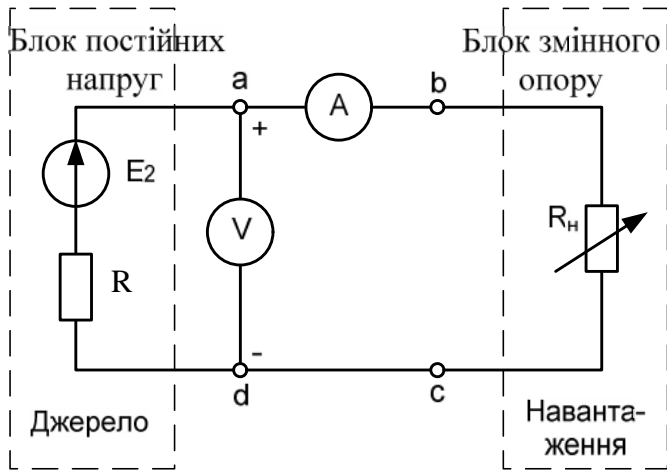
Multisim (

«Run»).

Multisim

( :

Tools/Capture\_screene\_area)



7.5 –

2

$R$

$I$

$U$

$R$  (

**POTENTIOMETER**)

. 7.1.

$R$

7.1

Multisim

**POTENTIOMETER**

( ' Shift+

),

" "

1000

. 7.1.

$2 = 15 + N =$  ,  $I =$  .

7.1 –

	$R_H,$						
		$I,$	$U, B$	,	,	,	, %
1	900						
2	800						
3	700						
4	600						
5	500						
6	400						
7	300						
8	200						
9	100						
10	50						
11	25						

Multisim (

«Stop»).

7.2.2.

η  
 ;  
 ;  
 ;

. 7.1.

7.2.2.1. ) , :

$$=EI.$$

. 7.1.

7.2.2.2.

R -

$$P = I^2 R_{BH},$$

2,

$$R = \frac{U_{xx}}{I} = \frac{E}{I}.$$

7.2.2.3.

. 7.1.

$$=U I.$$

. 7.1.

7.2.2.4.

$$\eta = \frac{P_H}{P} \cdot 100\%$$

$$\eta = \left(1 - \frac{I}{I}\right) \cdot 100\% .$$

. 7.1.

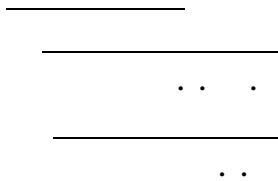
7.2.2.5.

$$+ = .$$

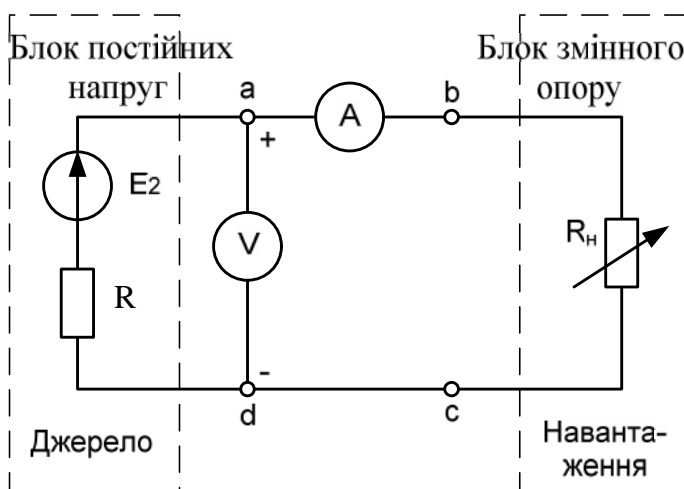
7.3.

( η ), , , U  
 , . 7.1.

- 1.  $R$  ?
- 2. ?
- 3. ?
- 4. ?
- 5. ?
- 6. ?
- 7. ?
- 8. ?
- 9. ?



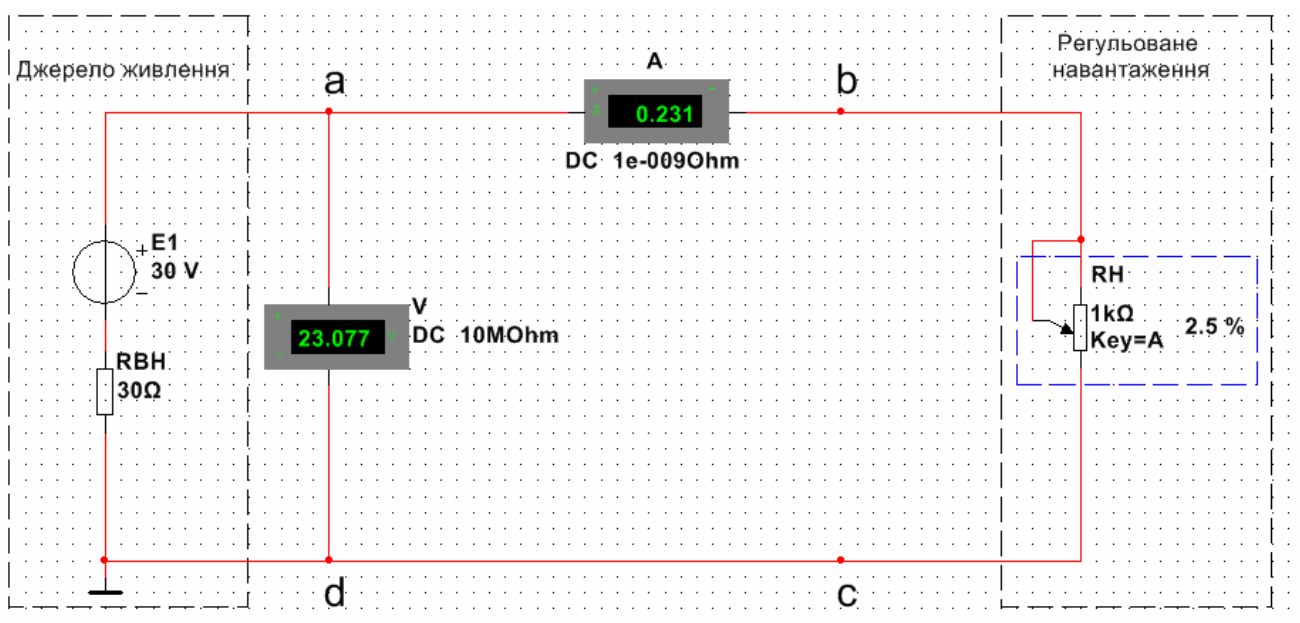
7



7.5 –

2

R



7.6 –

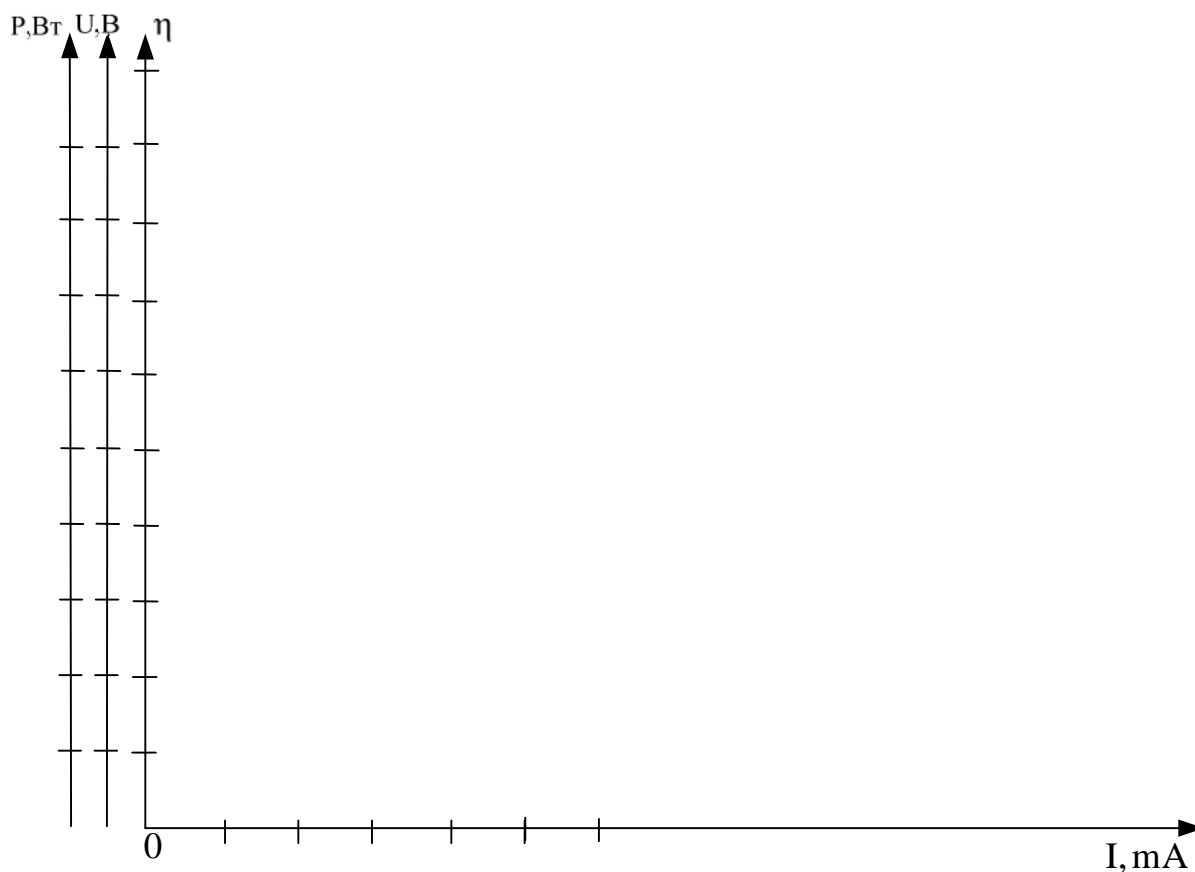
Multisim

2

R

$n_2 = 15 + N = \dots$ ,  $I = \dots$ .  
7.1 –

	$R_H,$						
		$I,$	$U, B$	,	,	,	$\eta, \%$
1	900						
2	800						
3	700						
4	600						
5	500						
6	400						
7	300						
8	200						
9	100						
10	50						
11	25						



7.7 –