

**ГОСТ Р
МЭК 62610-5-
2022**

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60297

60917

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**(IEC 62610-5:2016, Mechanical structures for electrical and electronic equipment —
Thermal management for cabinets in accordance with IEC 60297 and IEC 60917
series — Part 5: Cooling performance evaluation for indoor cabinets, IDT)**

2022

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4 62610-5:2016 «
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» (IEC 62610-5:2016 «Mechanical structures
for electrical and electronic equipment — Thermal management for cabinets in accordance with IEC 60297
and IEC 60917 series — Part 5: Cooling performance evaluation for indoor cabinets», IDT). -
1.5—2012 (3.5)
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(www.rst.gov.ru)

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© « », 2022

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5.1	4
5.2	5
5.3	5
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Mechanical structures for placement and installation of electrical and electronic equipment.
Thermal management for cabinets in accordance with IEC 60297 and IEC 60917 series.
Part 5. Cooling performance evaluation for indoor cabinets

— 2022—12—01

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3.1 (ventilation):

3.2 (buoyancy):

3.3 (natural ventilation):

3.4 (forced air cooling, forced ventilation):

3.5 (natural convection cooling):

3.6 (air moving device):

3.7 (sealed cabinet, without air moving devices):

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3.8	—	(sealed cabinet, with air moving devices):	-
		(),
	1 —		-
			-
	2 —		-
3.9 devices:		(non-sealed cabinet, without air moving devices):	-
			-
	—		-
3.10 devices:		(non-sealed cabinet, with air moving devices):	
	—		
3.11 subrack <forced ventilation>:		< > (air moving devices on the /	
	—		
3.12 on a cabinet <forced ventilation>:		«^ > (air moving devices	-
			-
	1 —		-
		/	-
	2 —		-
		/	-
		/	-
3.13		(simplified cooling performance evaluation):	
			-
	1 —		-
	5.		-
	2 —		-

3.14

10

(typical temperature rise):

3.15

20

(extended temperature rise):

4

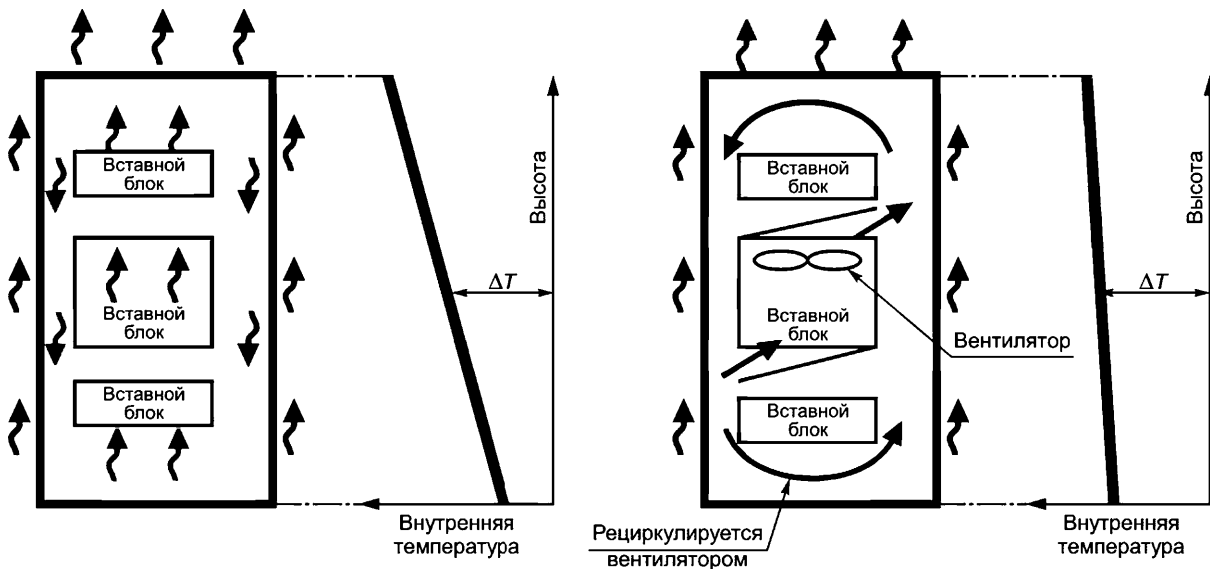
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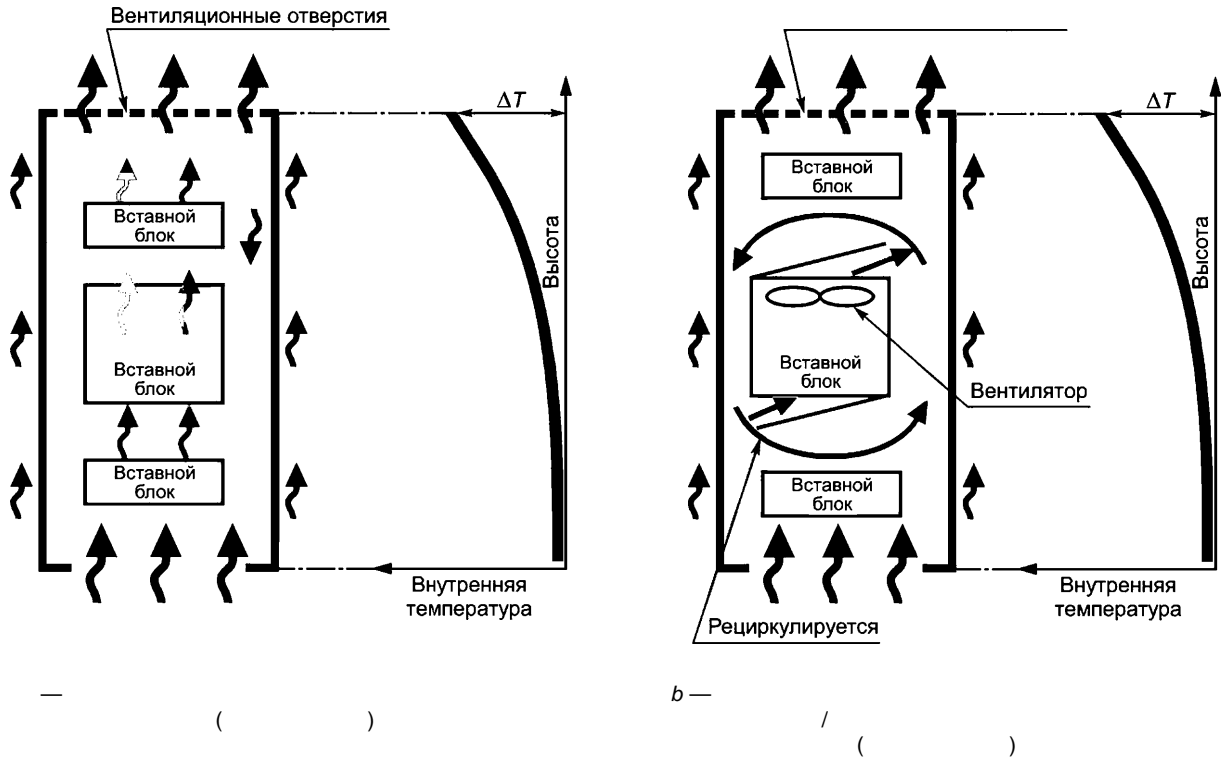


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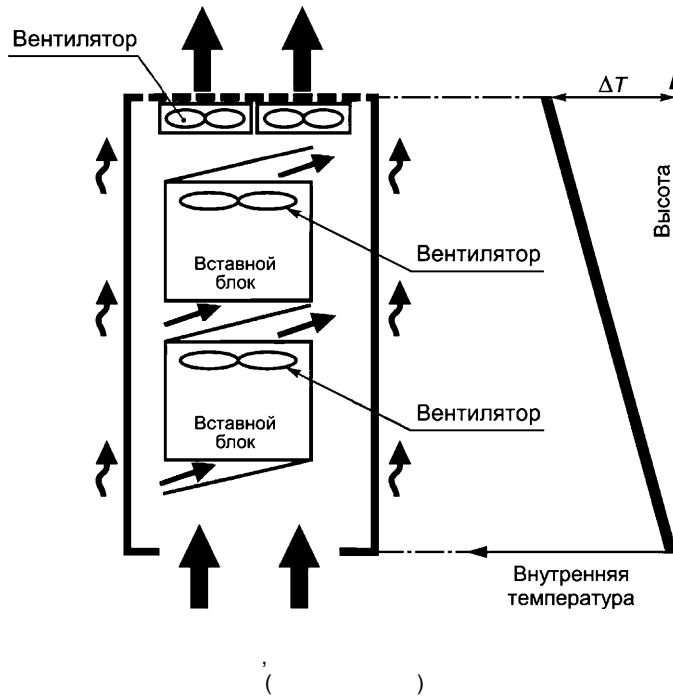
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5.1

5.2

5.2.1

1.

1 —

	. 3.7				1	(. 5.3)
	. 3.8				1	
	. 3.9				2	(. 5.4)
D	. 3.11				2	
	. 3.12				3	(. 5.5)

5.2.2

$$Q = Q_s +$$

Q_s —
 Q_v —

5.2.3

AT_s

$: AT_s$

$$AT_s = AT/2.$$

5.2.4

$= 10$;

$= 20$.

5.3

$$Q_s = h_s - AT_s,$$

h_s —

h_s

$8 / 2 \bullet$;

h_s

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5.4

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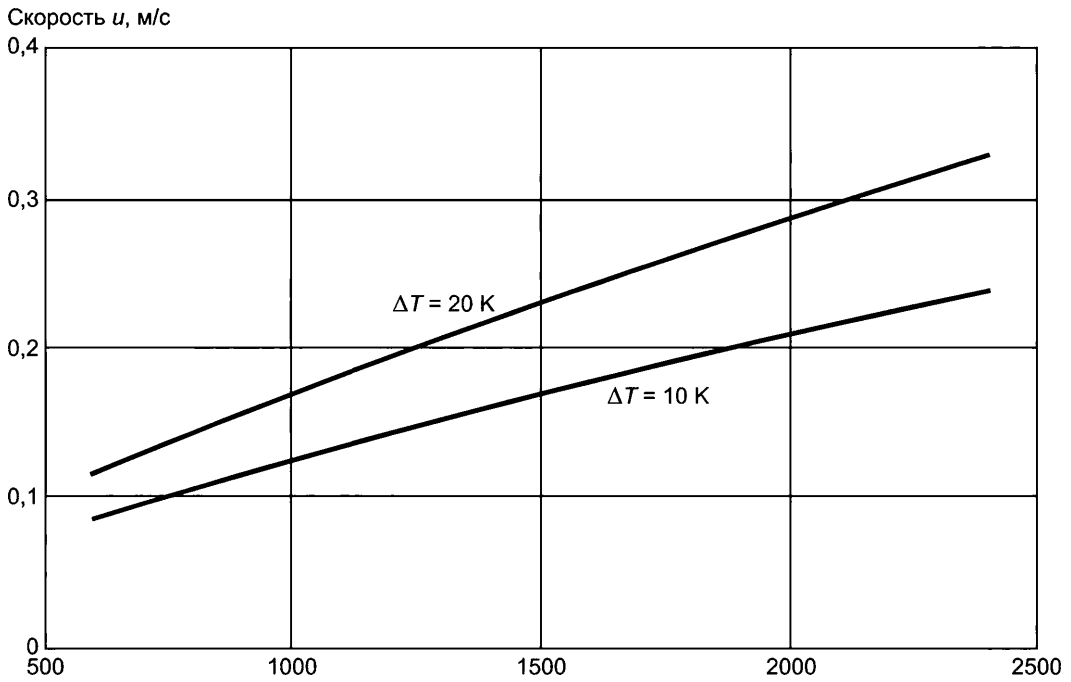
$$Q = Q_s + Q_v,$$

$$Q_s = h_s \cdot A \cdot \Delta T_s,$$

$$Q_v = P \cdot c_p \cdot A_p,$$

$\rho = 1005 \text{ / } \cdot ;$
 $1,2 \text{ / } ^3;$

4.



4 —

= 10

= 20

5.5

()

$$Q = Q_s + Q_v,$$

$$Q_s = h_s \cdot A \cdot \Delta T_s,$$

$$Q_v = P \cdot c_p \cdot F$$

—
—
1005 / • ;
F—
5.6

2.

2—

			= 10 (. 5.2.4)			= 20 (. 5.2.4)		
<i>W</i>	<i>D</i>		(. 5.3) <i>W</i>	(. 5.4) IV	(. 5.5) IV	(. 5.3) IV	(. 5.4) IV	(. 5.5) IV
600	600	2000	210	1100	3600	410	2900	7100
800	900	2200	330	2300	3700	660	6000	7400
600	600	1200	130	740	3500	260	2000	7000

—
1000 ^{3/} (0,28 ^{3/}).

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.1.

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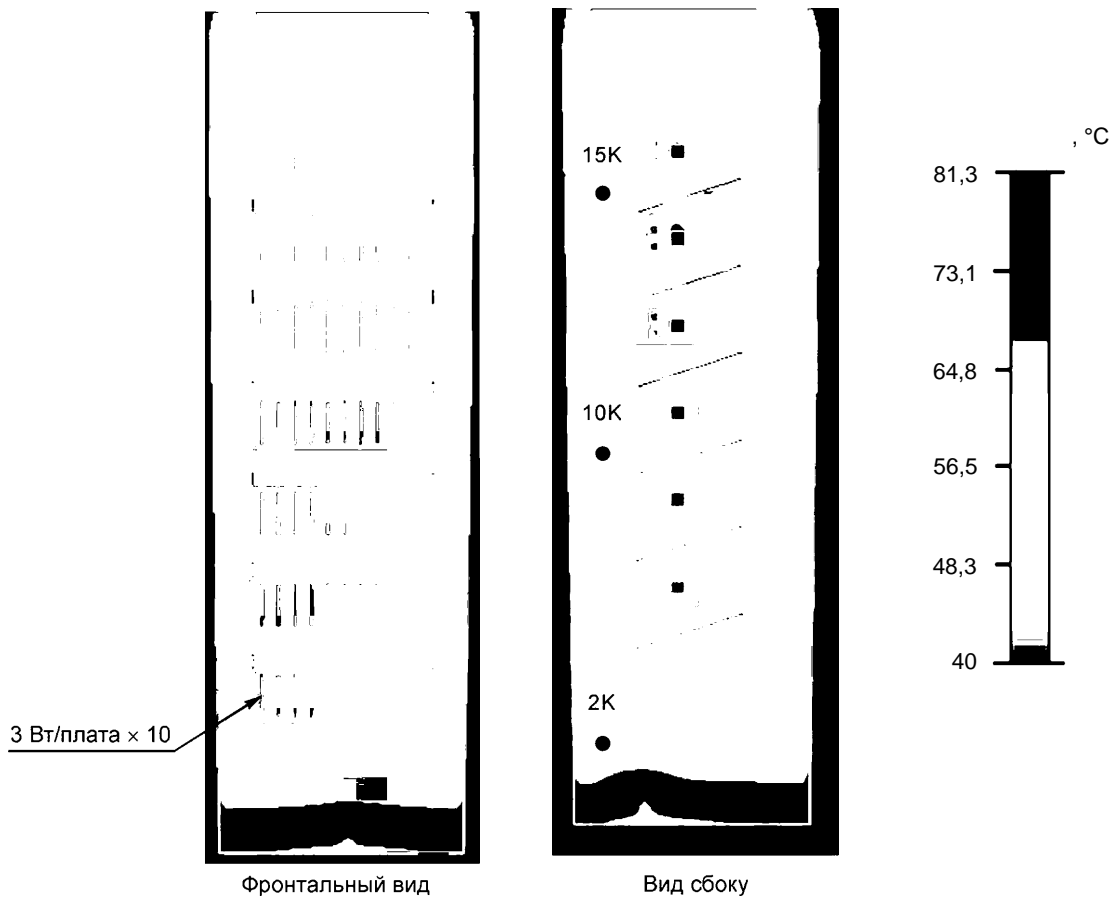
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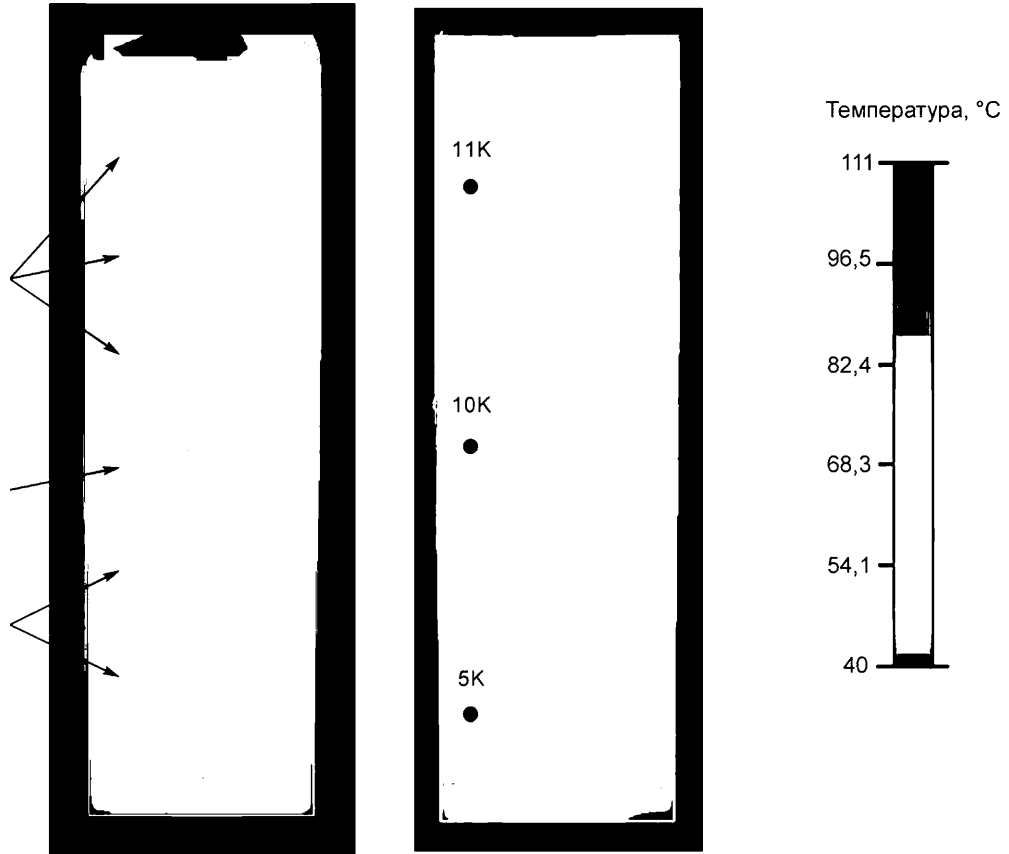
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 : 600 600 2000
 : 7 , 10
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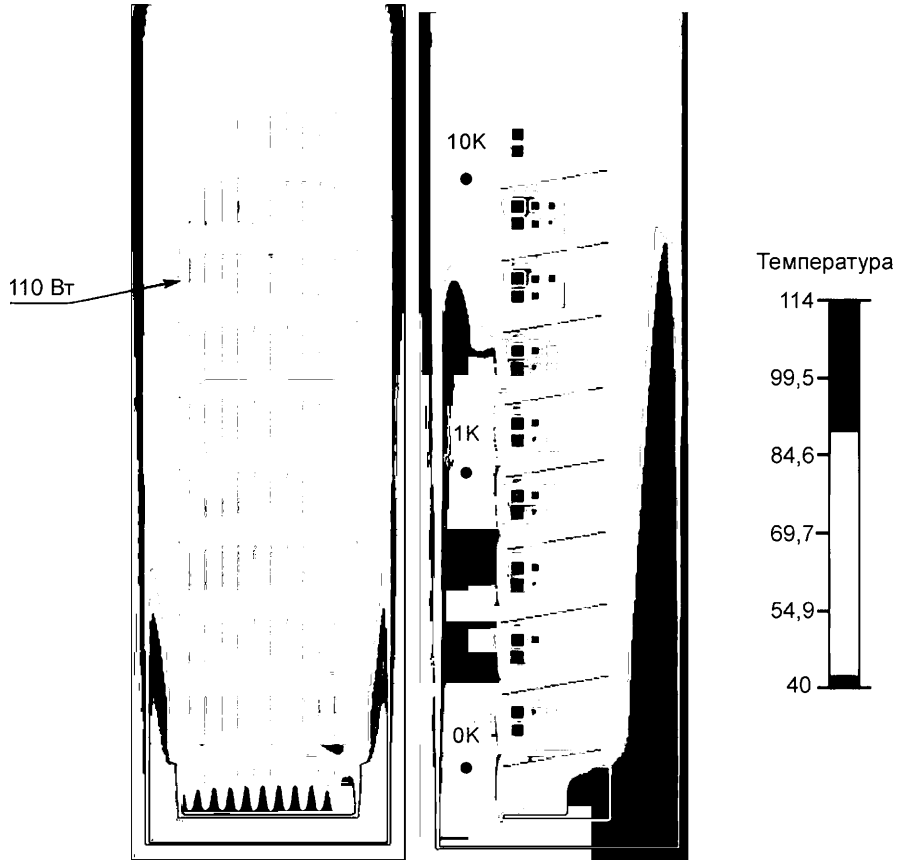
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: 600 600 2000
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10 2, 4 , 60 , 3 , 30 , 1 ,
210
(7 = 10)



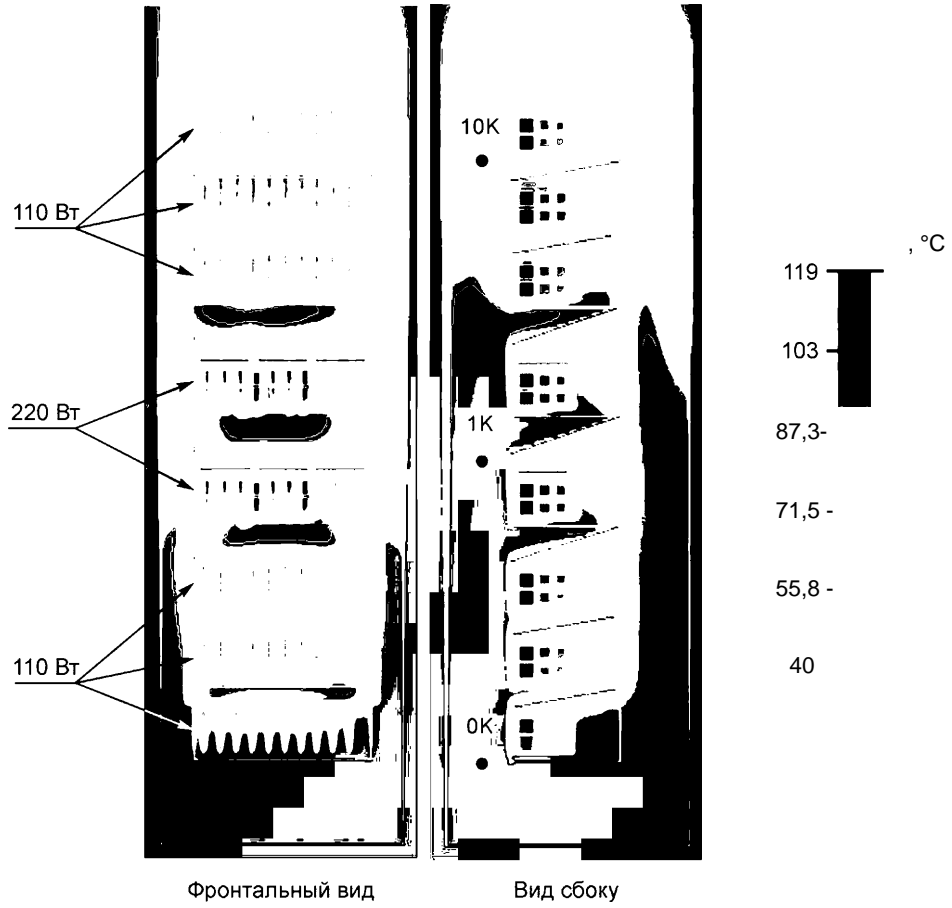
)
: 600 600 2000
: 10 : , 11 : 110
: : 1100
(= 10)



.4—

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d) : 600 600 2000
 : 6 , 11 , 110 , 2
 22 , 220
 : 1100
 (= 10)



Фронтальный вид

Вид сбоку

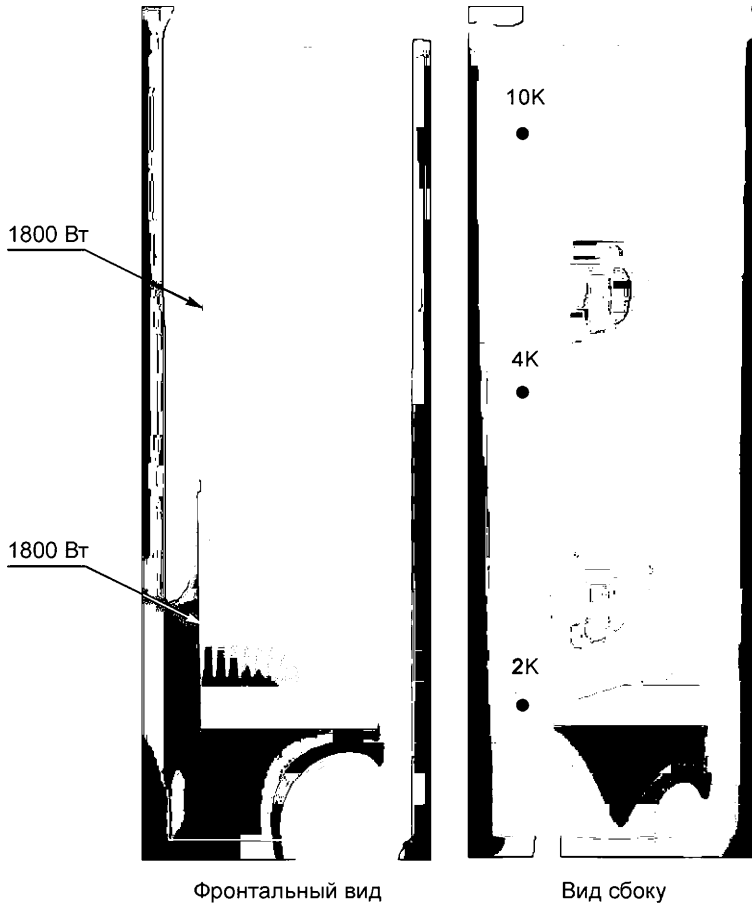
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D

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: 600 600 2000
: 2

128,6 14, 1800
3600
(= 10)



Фронтальный вид

Вид сбоку

.6 —

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31.240

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30.05.2022. 06.06.2022. 60x84%.
2,32. - . 1,90.
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117418 , - , . 31, . 2.
www.gostinfo.ru info@gostinfo.ru