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IEC 60332-1-2  
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IEC 60332-1-3  
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IEC 60332-2-2  
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IEC 60332-3-22  
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IEC 60332-3-23  
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IEC 60332-3-24  
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IEC 60332-3-25  
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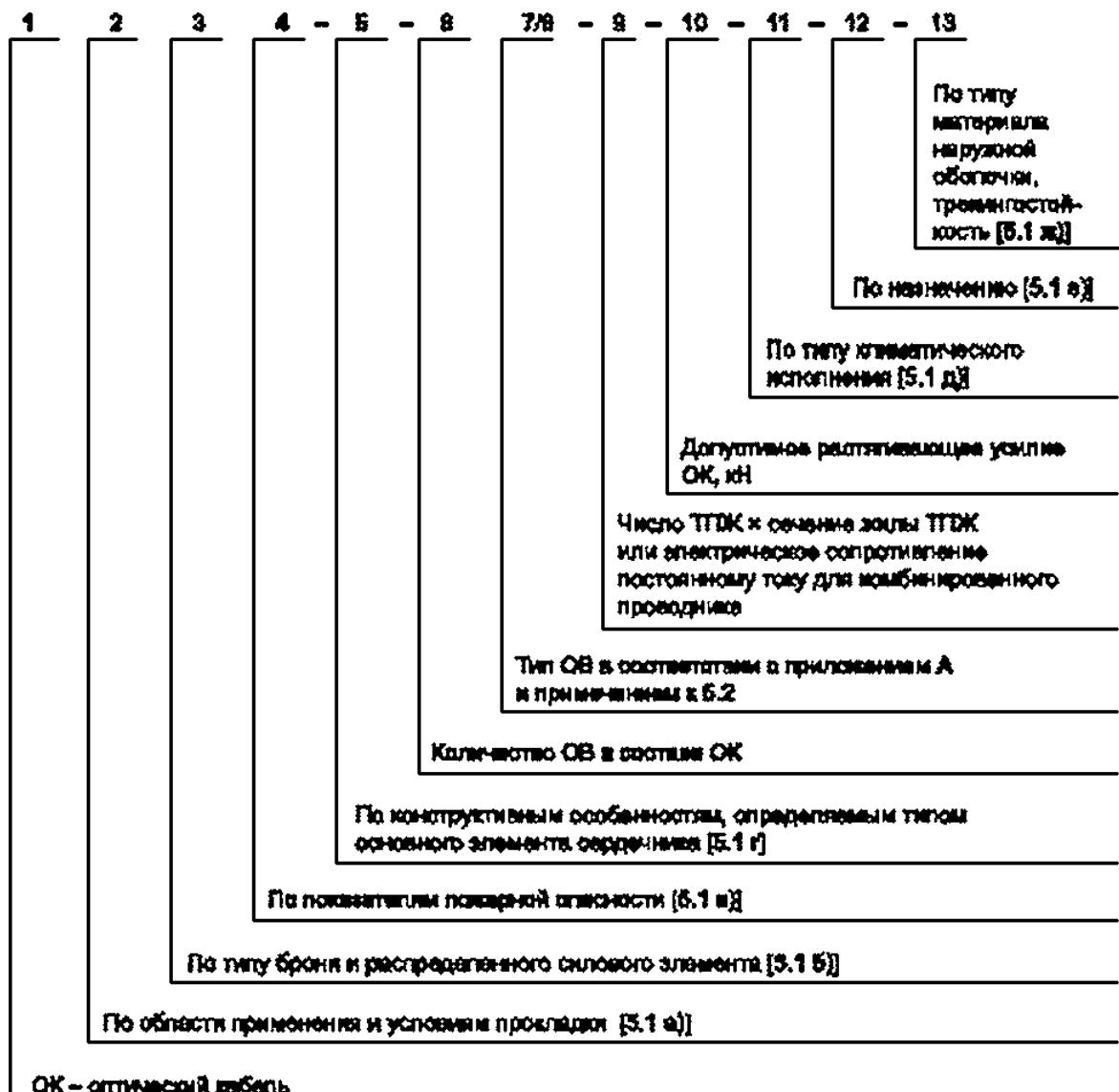


Рисунок 1 — Структура условного (кодового) обозначения оптического кабеля

G.652D, 4 7	, 1,13    2, : ^ 8-24 652 -20- -	24 4. , * 32	G.652D. 20 : 48
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OK3K.M8-32G652D/24OM4-4x1.13-7

*OK3nHZ(A)-LS-M8'48G652D-1.5*

24      G.652D,  
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*OKB3n-M6'24G652D-0.4*

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9.2.3 (6.1.4)

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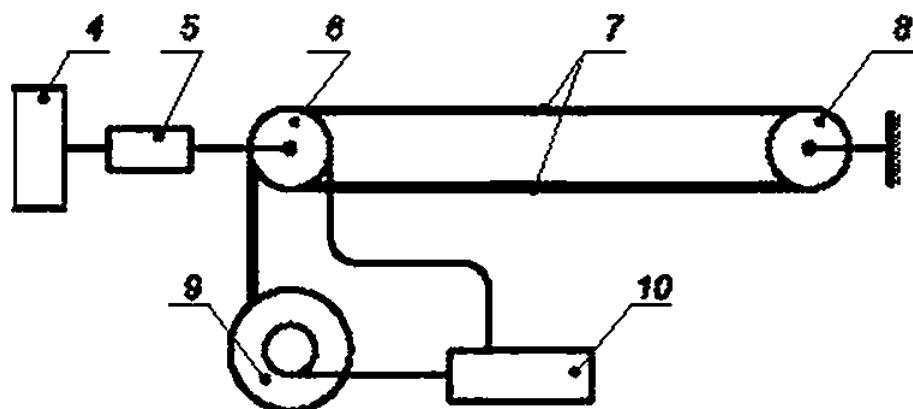
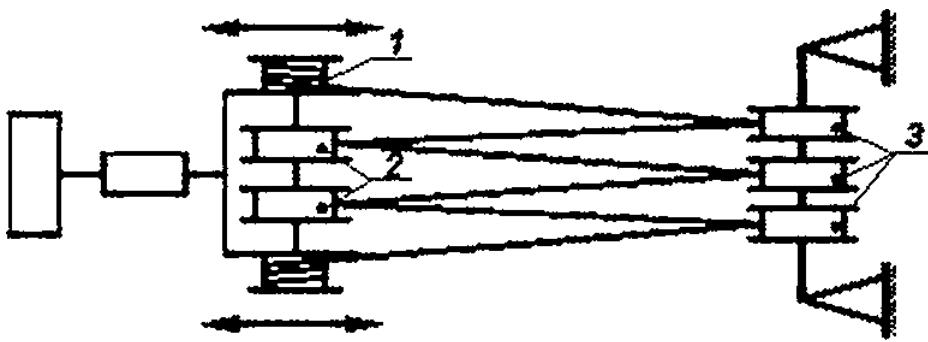
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9.4.3 (6.2.3.3) 2990.

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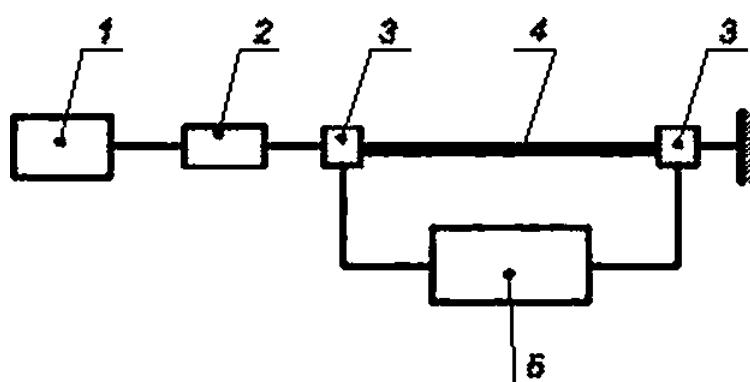
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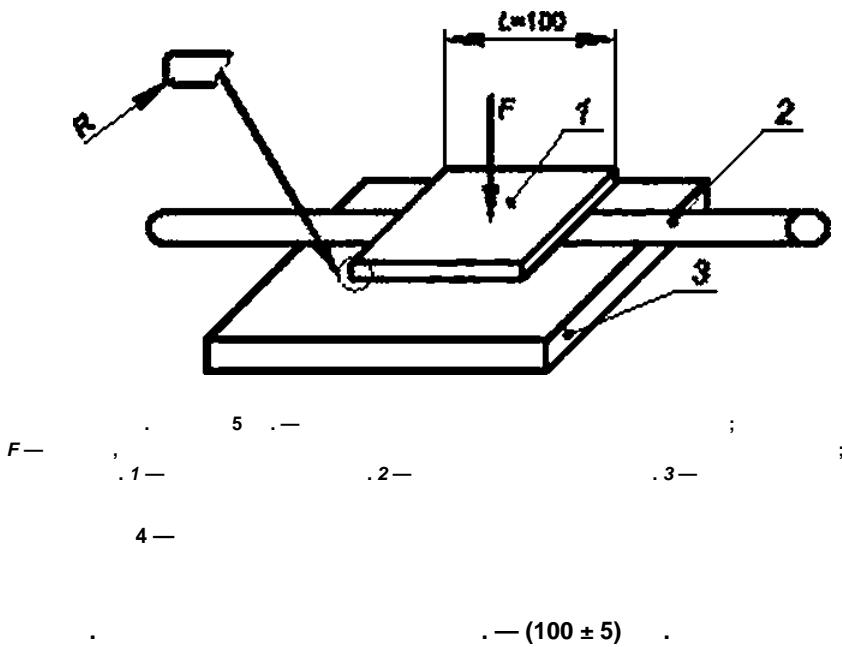
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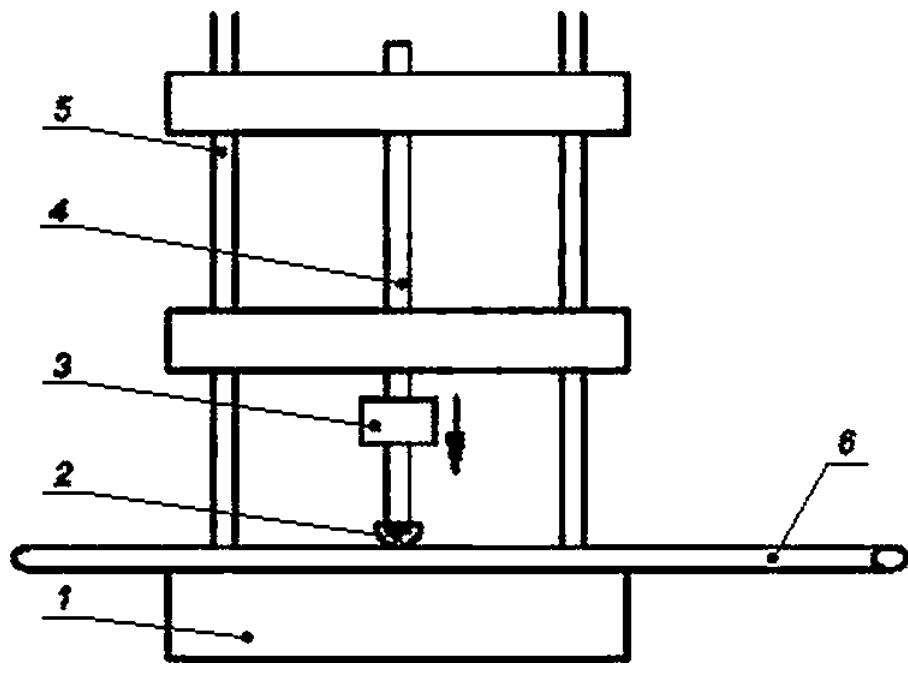
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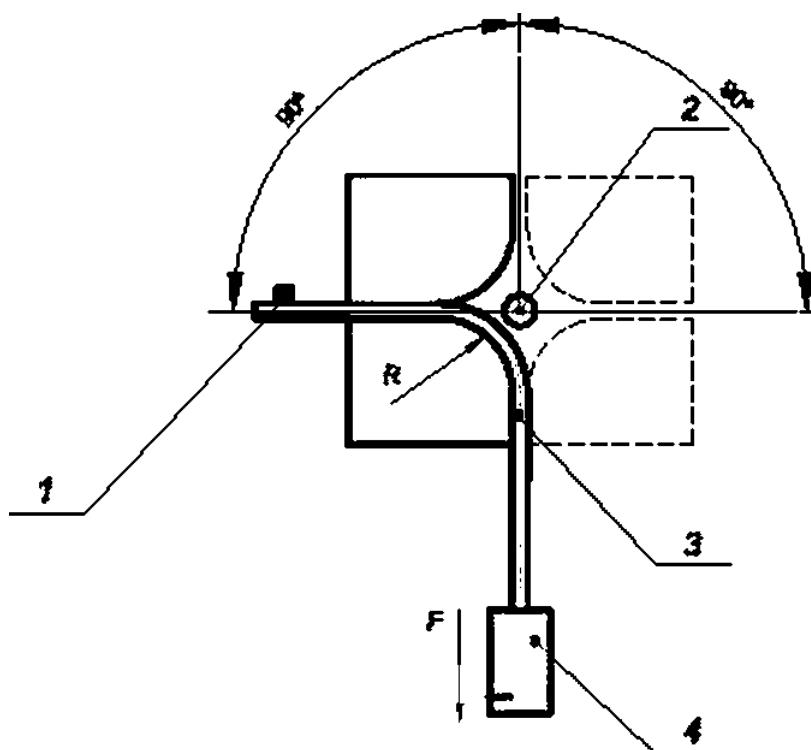
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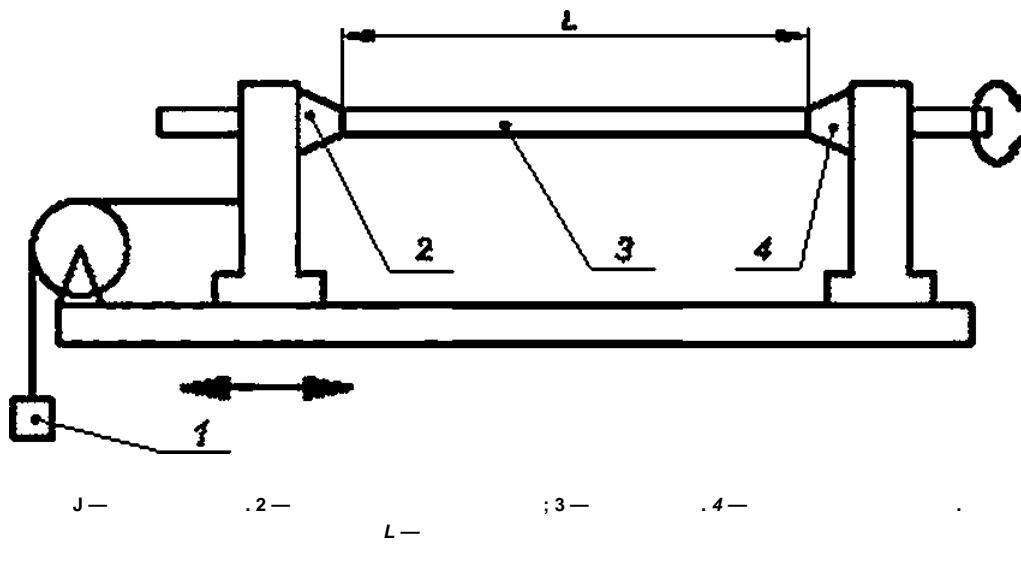
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9.6.6.2 20.57.406 ( 102-1).

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9.6.7 (6.3.7) 50

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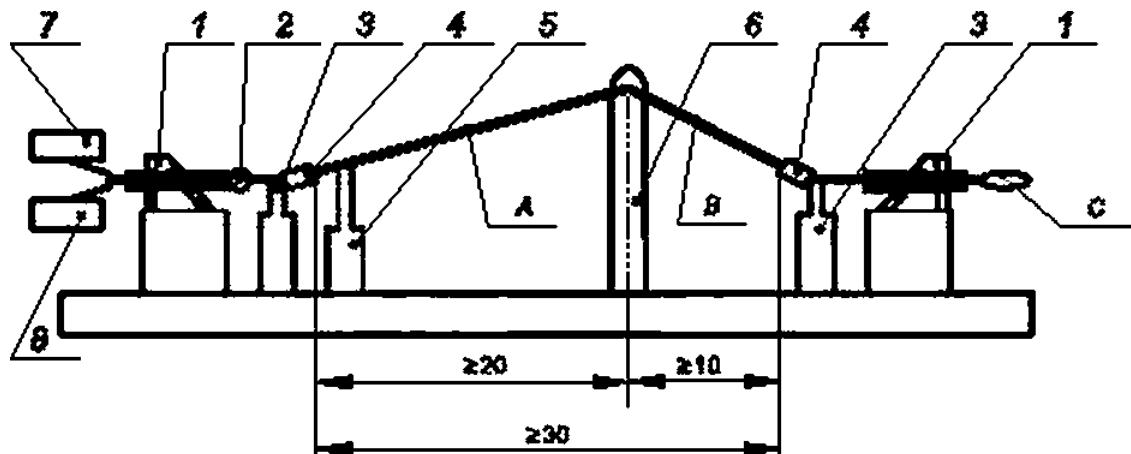
[7] ( 19)

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60793-1-46

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9.3.3.

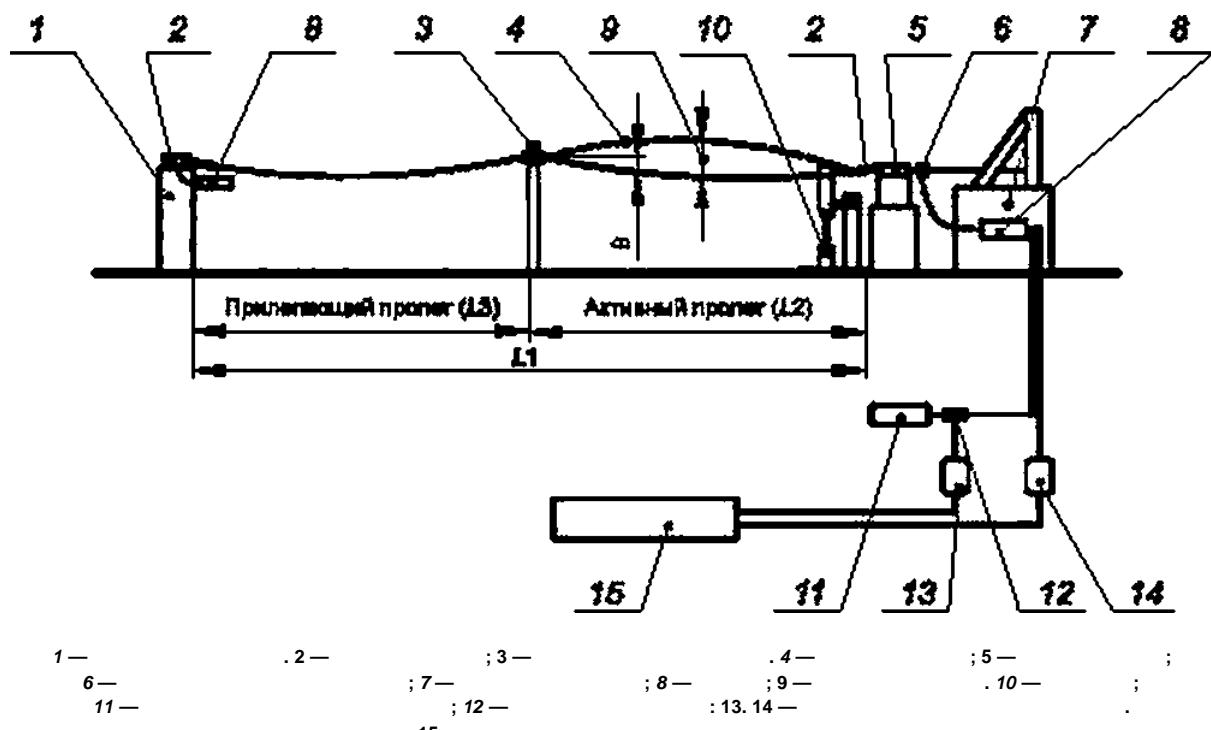
15 );

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( 9.3.3);

9.6.8 (6.3.8) 10  
 11 [7] ( 26 ) 50 .



L1		2 30
L2		2 15 1»
L3		2 15 1»
L4		2)
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£1 L3.		

100

L1.

( 100 . )

( L1).

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L2.

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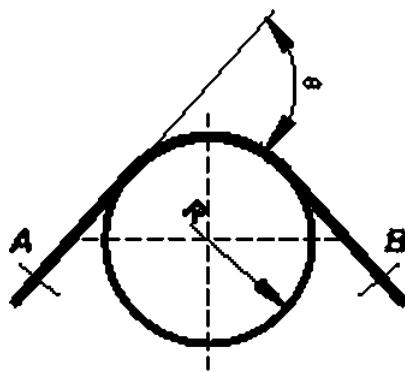
9.6.9

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[7] (        18 )

(6.3.11)

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± 1 %.

± 120

±(5\*10 ) .

L

$$L = 100d + 2a.$$

(1)

100 —

d —

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—      5

1000 ,      (25 ± 2) %

5      ± 10      ( \*  
20 % )

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5      ± 10

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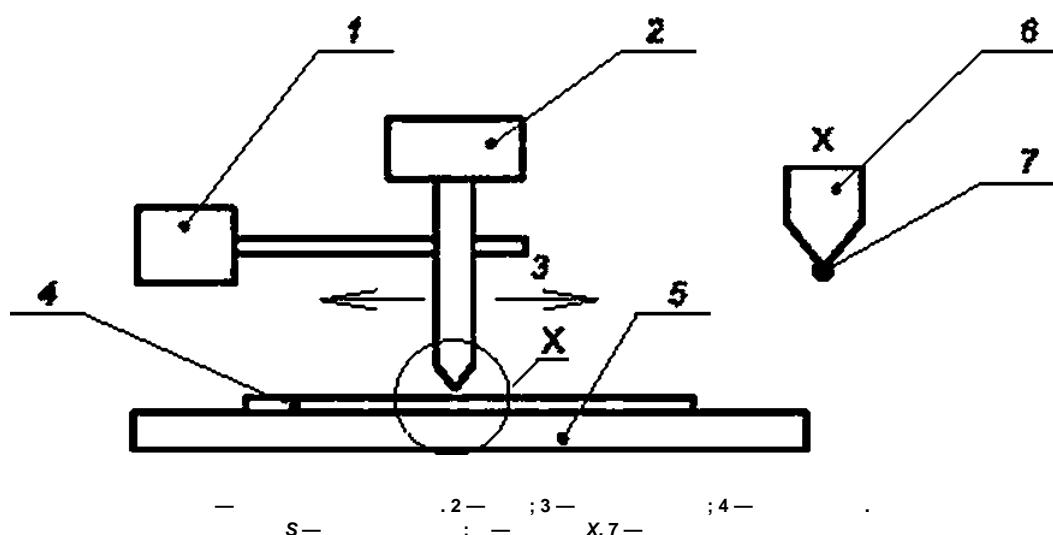
[8].

**9.6.11** (6.6.4) , 12, [7] ( 2 ) **(6.3.12)**

(55 ± 5) . (40 ± 1)

1,0 ,

(4.0 ± 0.5)



1500).

100

90<sup>s</sup>

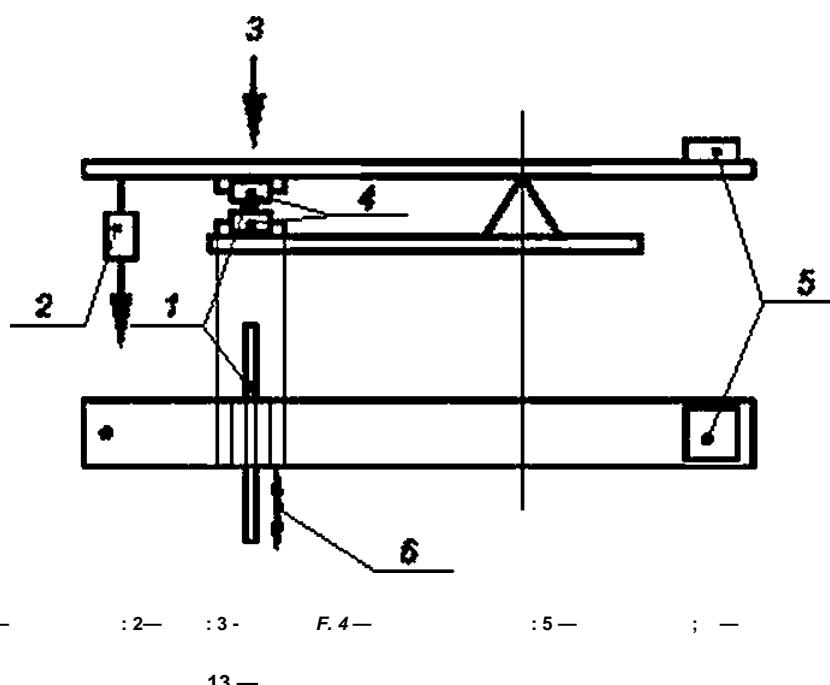
).

) 750

13

[7] (

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(5.0 ± 0,5)

(100 1 10)

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9.6.12

(6.3.13)

6.3.13,

9.6.12.1

(6.3.13)

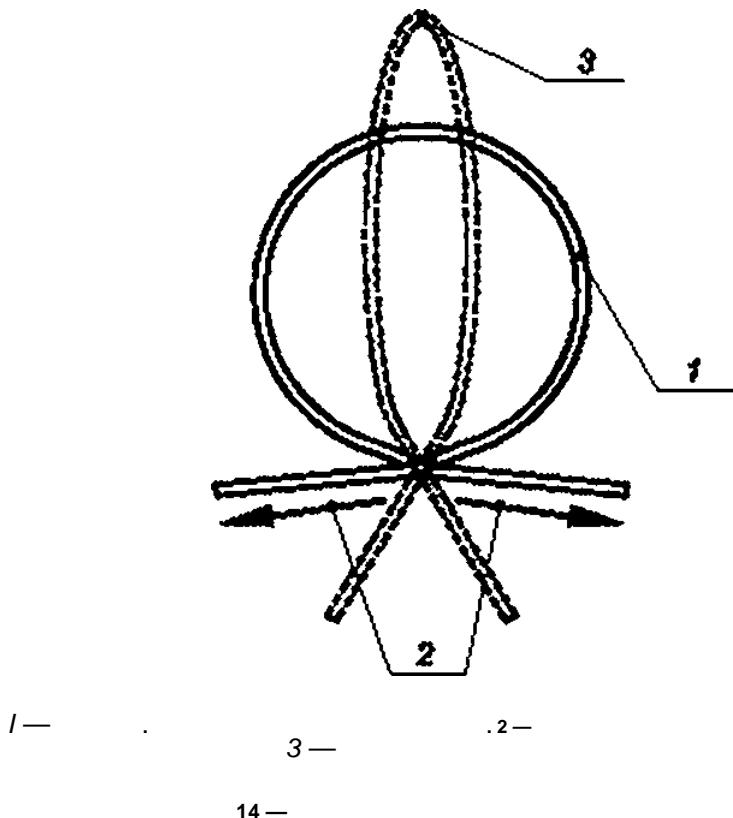
14.

[7] (

1

3 .

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*d*

0 = / . (2)

3

14.  
9.6.12.2 (6.3.13) G7  
60794-1-23.

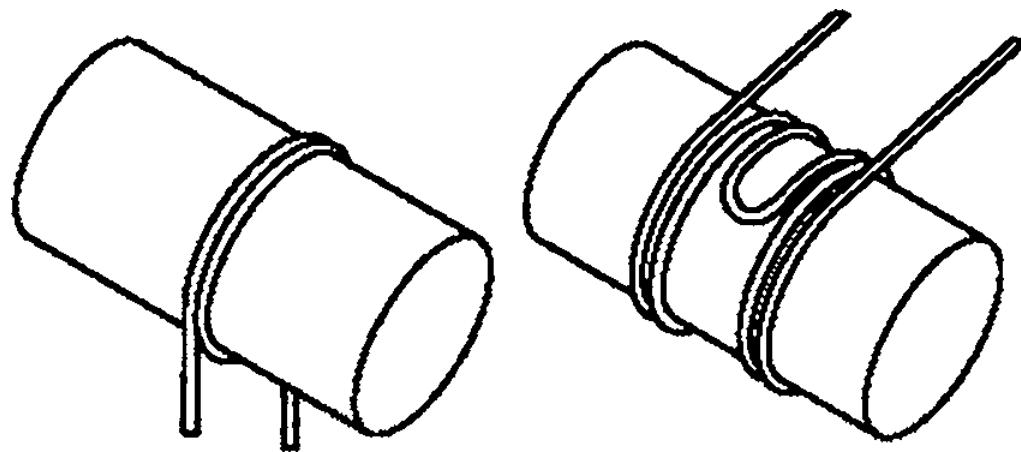
9.6.13 (6.3.10) (7) ( -  
11 ) 20 .

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9.6.14  
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(6.3.14)

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9.6.15

F5B F5C

60794\*1 >22

(6.2.1.5)

3

( $3 \pm 0.1$ )

3

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[9] (10)

50 %

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0.36 0.70	1
0.8 1.5	2
1.6 15.0	4
16 100	8
101 250	12
251 500	14
501	16

## 9.3.1:

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 \* ;  
 8 . \*

201 203 20.57.406

- , : \*  
 - 0.1 / 0.5 / ;  
 \* ( 9.3.4), \*

( 9.3.4).

9.7.2 (6.2.1.6) >  
211\*1 51370\*99.

) (40 ± 3) ' — (45 ± 3) ' .  
 (1120 ± 112) / <sup>2</sup>,  
 (68 ± 17) / <sup>2</sup>,  
 (

— 10 .

1 . , \*

3 .

(1 ) 9.6.13

2

9.7.3 (6.4.5) F15 60794\*1 \*22.

\* 0.35 : ;  
 \* ( 9.3.4). \*

9.7.4 ( 9.3.4).  
 [7] ( 14) (200 ± 5) (6.4.6)  
 (10012,5) ( )  
 (60 ± 2.5) ( ).

( . . ).

0.5 % , 0.5 .

24 .

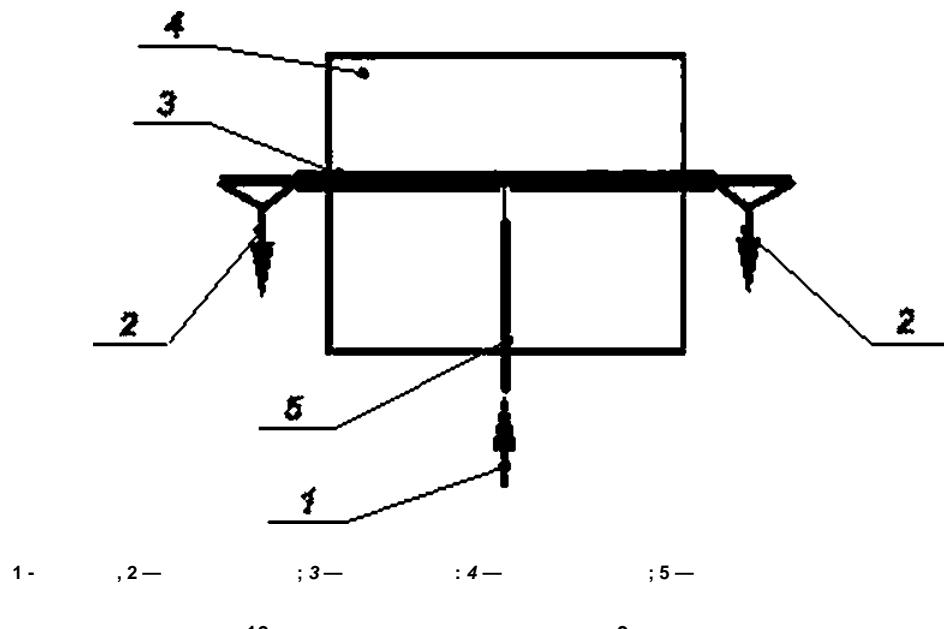
0.005 .

0.050 .  
 0.100 . 0,050 .

0.050 .  
 9.7.5 (6.4.7)  
 207-2 20.57.406 1000 .

650 .  
 1000 .

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(95 ± 3) %.				
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9.7.6				(6.4.8)
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9.7.7				(6.4.9)
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8				
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,				
9.8				
(6.5.3)				
,				
,				
9.9				
9.9.1				(6.6.1—6.6.3,6.7)
18690				
—				
9.9.2				(6.6.4)
9.6.11.				
9.10				
9.10.1				
9.10.1.1				(7.1.1)
3345.				
—				
3345.				
9.10.1.2				(7.1.2)
2990.				
,				
9.10.1.3		3		
(7.1.3)		[5]		1
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(26 ± 1)				
Nv 20-40				
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5				
,				
8				



0,4

15 %

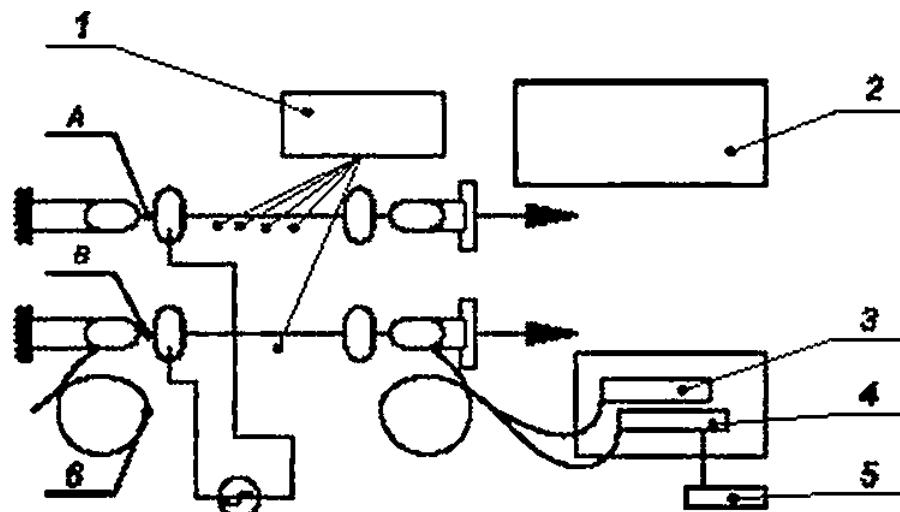
3

( )

9.10.1.4

17 [6] ( 1)

(7.1.4)



— 3 —                          .2 —  
S —                              .4 — ; — ; —

17 —

9.3.3.

(15 ± 5) %

— 10;

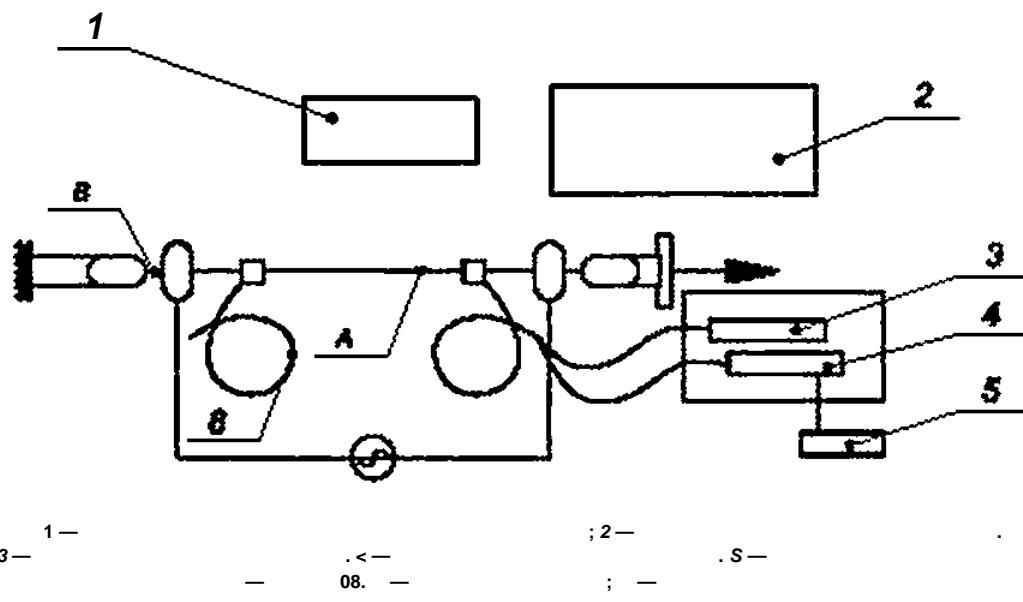
5 "

2

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9.3.3.

5'



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•  
•  
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— 10;

08

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2

9.10.1.5

(7.1.5)

(6) ( 2)

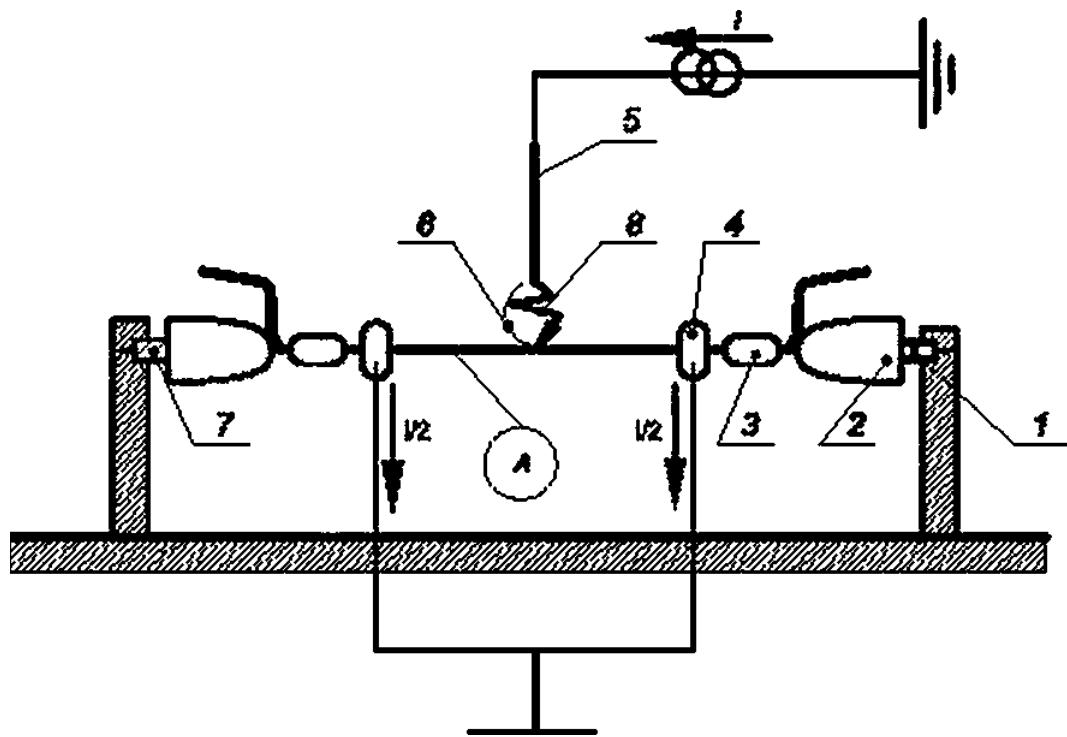
10

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15 % 25 %

19.



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 19—

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	100	200	300	400
	0.5	0.5	0.5	0.5

$(23 \pm 5)^\circ$

).

60793-1-46

9.3.3.

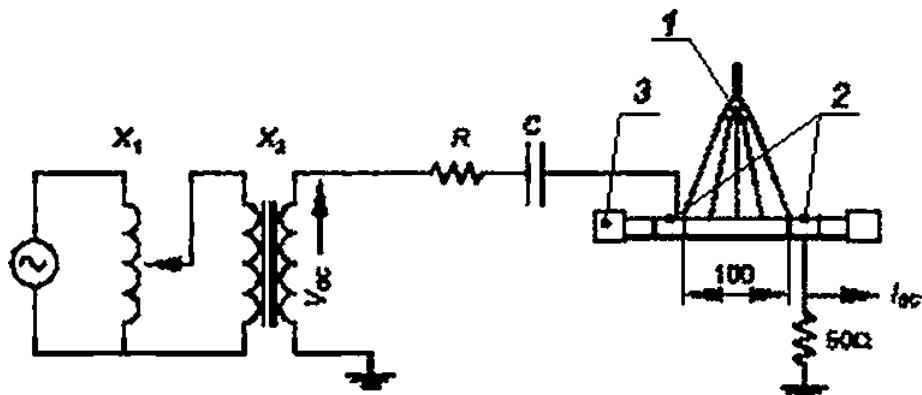
(

9.3.4).

75 %

9.10.1.6  
)(6.2.1.8)  
(460120)

20. [11 j]

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; 3 —

OK. X, —

20 —

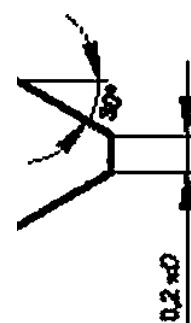
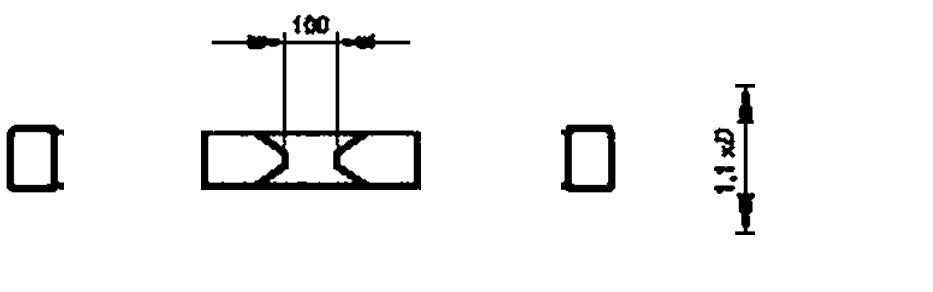
( )

20.

250

1

21.



21 —

25

300

14.

40

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5.3 ( )	200 000	5,8-10®	457
5.7 ( )	500 000	9,2-10®	290
6 ( )	1 000 000	13,1-10®	200
6.3 ( )	2 000 000	18,6-10®	145
6.7 ( )	5000 000	30,0-10®	90
7 ( )		42,0-10®	65

R

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2 3 / )

(0.4 0.1)

2 1 3

1000

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3 / .

300

30 %

9.10.2

9.10.2.1

(7.2.1)

IEC 60332-1-2.

IEC 60332-1-3

IEC 60332-2-2.

9.10.2.2

(7.2.2)

IEC 60332-3-21,

IEC 60332-3-22.

IEC 60332-3-23,

IEC 60332-3-24

IEC 60332-3-25.

9.10.2.3

9.10.2.4

(7.2.3)

IEC 61034-2.

(HCl)

IEC 60754-1

(7.2.4),

1 %

9.10.2.5

pH

	1 %	(7.2.4),
IEC 60754-2.		
9.10.2.6		
(7.2.5)	31565.	13      12.1.044-89.
	—	
	1 %	
9.10.2.7	(7.2.6)	IEC 60331-25.
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	— 2 ;	
	— 5 .	
<b>10</b>		
10.1		18690
15150.		
10.2	,	
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10.4	,	— 5 *    40 ' .
10.5	,	
50	( 50 * ;	) —
	— 60 *    60 °C;	
	— 60                50 ;	
	— 40 °C            65 .	
<b>11</b>		
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	,	
	(                ),	
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G.657 —

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11.16.1—11.16.6.

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11.16.2

11.16.3

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11.16.4

11.16.5

11.16.6

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	G.652		G.654					G.655			G.656	G.657			
	G.652.B	G.652.D	G.654.A	G.654.B	G.654.C	G.654.D	G.654.E	G.655.C	G.655.D	G.655.E		G.657.A1	G.657.A2	G.657.B2	G.657.B3
60793- 2-50	1.1	13	1.2_	1.2_	12.	—	—	4_	B4_d	4_	5	6_ 1	6_ 2	6_ 2	6_
(12H16J)	G.652		G.654					G.655			G.656	G.657			
	G.652.B	G.652.D	G.654.A	G.654.B	G.654.C	G.654.D	G.654.E	G.655.C	G.655.D	G.655.E		G.657.A1	G.657.A2	G.657.B2	G.657.B3
(17)	-652		-654					-655			-656	-657			
	-652.	-652.0	-654	-654	-654.	-654. D	-654.	-655.	-655. D	-655.		-657 1	-657. 2	-657. 2	-657.

ua .2—

	1	2	3	4	5
60793-2-10	1	1 .1	1 .2	1 .	1 .4
(18)	—	G.651.1			
(19)	1	2		4	5
(20)	1	2		4	5

( )

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	1 ( )	« »	
1 .	<b>OPGW (Optical ground wire)</b>		
2 .	<b>(Optical phase conductor)</b>		
3	<b>MASS (Metal armored self supporting)</b>		
4	<b>ADSS (All dielectric self supporting)</b>		
5 . - ( , )	<b>OPAC (Optical attached cable)</b>		
6 . «8»	<b>SSW (Self supporting with windows)</b>		

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31		2»50
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1	—	.	.
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3	—	.	— N9 2.

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2	1x50
3	1x75
4	2x50
5	2»75
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 .3.2 ( .2) , .4.  
 .3.3 — .  
 .3.4 3 ,  
 30 , 85 \* .  
 , .3.5 , 3  
 — ( 3).  
 .3.6 , .2, .4.  
 .3.7 — , ( .2)  
 .4. ,  
 .4.1 ( , )  
 .4.2 100 ,  
 , ( ),  
 .4.3 60793-1-32.  
 .4.4 TM G.5 60794-1-23.  
 .4.5 ( ) 3  
 .4.6 : 9.6.13  
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 .4.7 3 : 9.6.4  
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 .4.8 — 3 :  
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97—98	4
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99.5	20

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12177

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60793-1-40.

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60793-1-40.

1310.1550 1625

1300

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.2.6.1

Vg(F<sub>0</sub>).2ov.

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.2.6.2

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(e\$ = 0)

30

1000

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voe(po- ^\*)-

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±2'

.2.6.3

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.2.6.2,

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v^e. 7)

Vqb(Eq. 7 ).

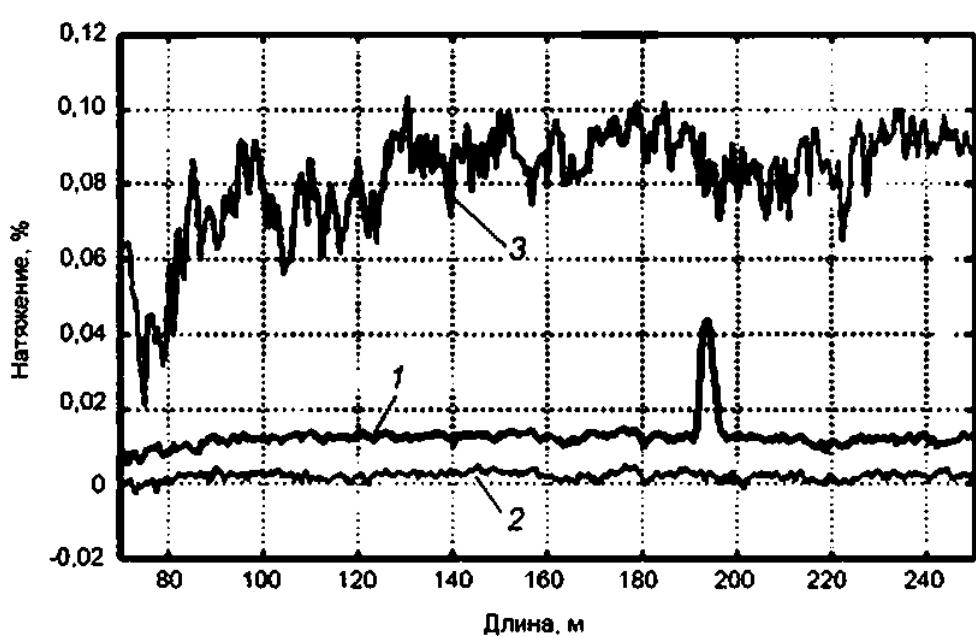
1000

## .2.6.4

$$\Delta v = \frac{W_1 - W_2}{W_1} \cdot 100\% \quad (2)$$

$\Delta v = \frac{W_1 - W_2}{W_1} \cdot 100\%$ ;  
 $V_q(E_0, \alpha) = V_{q0} \cdot e^{(\alpha - \alpha_0)/\beta}$ ;  
 $\alpha^* = 529^\circ / \text{m}$ .

## .2.6.5



## .2.6.6

.2.7

60793-1-32.

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3345.

1.3 13,3

6.2.1.2:

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7229.

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.2.6.5.

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.3.2.1

( .3.1)

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.3.3

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.2.6

0.1 %.

.4

.4.1

.4.1.1

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.2.

( .2).

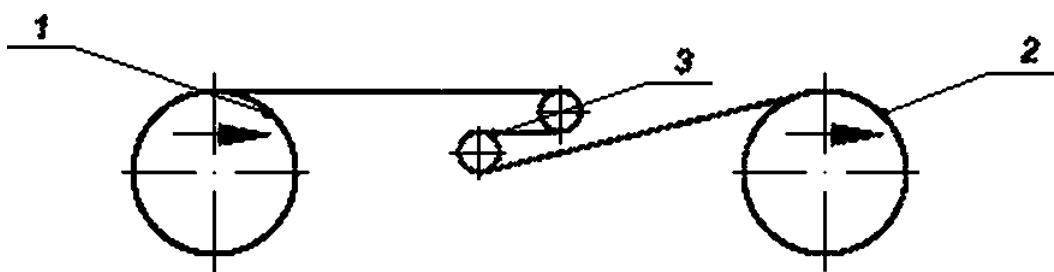
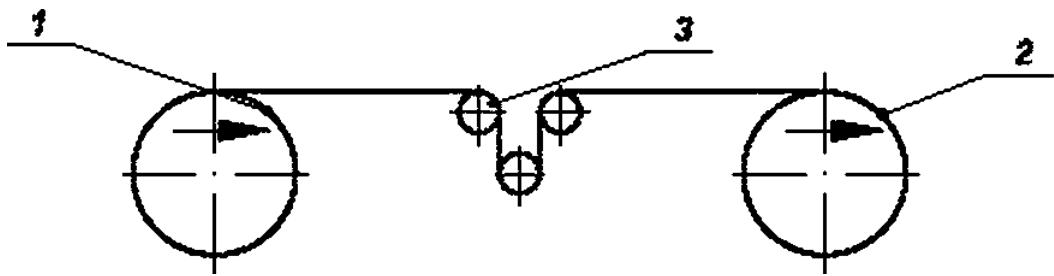
— 5 %.

20 /  
25

— 5.

( )

— .2.3 .2.5.



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.2 —

.4.1.2

.4.1.1

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.4.1.3

.4.1.2

.4.1.4— .4.1.6,

.4.1.4

203-1      20.57.406.

.2 —

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	40	196	6
	216	100	320
	72 ( 35' )    36 ( 50* )	36 ( 35* )    18 ( 50* )	120 ( 35* )    60 ( 50* )

.4.1.5

201-1.1      20.57.406.

.4.1.6  
208-2      20.57.406  
              (35 ± 3) \*      (50 ± 3) \*  
              (93 ± 3) %,  
              .2

.4.1.7  
9.6.1  
— 10  
—  
60793-1-22,

.4.1.8      24 ,

.4.2  
.4.2.1

.4.2.2      .4.1.  
10      876  
.4.2.3

.2,  
.4.2.4  
(      ),

.4.2.5  
—  
(      ),

0.5 %.      .2.6.  
w (      ),

- [1] IEC 60304: Edition 3.0 1982-01. Standard colours for insulation for low-frequency cables and wires
- [2] ANSI/TIA-598-D-2014, Optical Fiber Cable Color Coding
- [3] IEC 60794-3-20: Edition 3.0 2016-09. Optical fibre cables — Part 3-20: Outdoor cables — Family specification for self-supporting aerial telecommunication cables
- [4] IEC 60794-4-10: Edition 2.0 2014-10. Optical fibre cables — Part 4-10: Family specification — Optical ground wires (OPGW) along electrical power lines
- [5] ITU-T Recommendation K.47 (05/2012). Protection of telecommunication lines against direct lightning flashes
- [6] IEC 60794-1-24: Edition 1.0 2014-05. Optical fibre cables — Part 1-24: Generic specification — Basic optical cables test procedures — Electrical test methods
- [7] IEC 60794-1-21: Edition 1.0 2015-03. Optical fibre cables — Part 1-21: Generic specification — Basic optical cables test procedures— Mechanical test methods.
- [8] IEC 61395:1998. Overhead electrical conductors — Creep test procedures for stranded conductors
- [9] ITU-T Recommendation G.976 (05/2014), Test methods applicable to optical fibre submarine cable systems
- [10] ITU-T Recommendation G.978 (07/2010). Characteristics of optical fibre submarine cables
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