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TEVOKS® PB POWER CABLE

FOR 6kV to 35kV VOLTAGE

Low-voltage power cable with ethylene-propylene rubber insulation

www.mkm.ru +7 (495) 777-75-00

TEVOKS® PB CABLE DESCRIPTION

These cables are used for fixed installation in distribution networks within explosion-hazardous areas of all classes, including cold climates.

TEVOKS® PB is used for outdoor and indoor power supply systems. Outdoor cable installation requires special metal structures and metal trays.

The cables can also effectively transfer power underground and in areas of high humidity. High safety requirements for **TEVOKS® PB** cables are due to their potential use in construction of public facilities and high fire risk locations.

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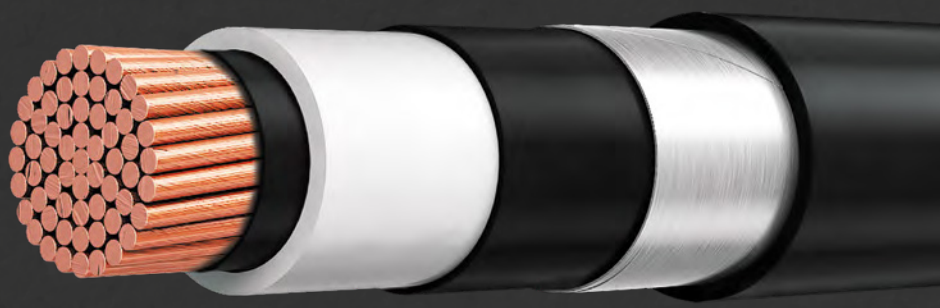
KEY ADVANTAGES OF **TEVOKS® PB**

- Frost resistance
- Higher current load compared to XLPE cables
- High thermal resistance current during short circuits
- Oil and petrol resistance
- Approved for installation in all classes of potentially explosive atmospheres
- Rubber resistance to moisture absorption



Cables with ethylene-propylene rubber insulation, max. 35 kV

(TU 27.32.14-134-05758679-2018)

Design use:

Designed for power transmission and distribution in fixed electrical installations at 6 - 35 kV rated AC voltage and 50 Hz rated frequency.

Single-core cables rated for 15 kV may be used in DC networks with max. 4 kV voltage.

Rated voltage of cables U0/U – 3.6/6; 6/10; 8.7/15; 12/20; 18/30; 20/35.

УХЛ climatic version, location categories 1 and 5 as per GOST 15150-69.

See Table 1 for the cable types, cable design elements, and fire hazard classes as per GOST 31565.

TABLE 1

CABLE TYPE		CABLE COMPONENTS	FIRE HAZARD CLASS
ALUMINIUM CONDUCTOR	COPPER CONDUCTOR		
TEVOKS® АРвП	TEVOKS® РвП	EPR insulation, polyethylene sheath	-
TEVOKS® АРвПу	TEVOKS® РвПу	EPR insulation, reinforced polyethylene sheath	-
TEVOKS® АРвПг	TEVOKS® РвПг	EPR insulation, polyethylene sheath with longitudinal sealing using water-blocking tapes	-
TEVOKS® АРвП2гж	TEVOKS® РвП2гж	EPR insulation, polyethylene sheath with double longitudinal and transverse sealing using water-blocking materials for the cable and conductors.	-
TEVOKS® АРвП2г	TEVOKS® РвП2г	EPR insulation, polyethylene sheath with double longitudinal sealing using water-blocking tapes	-
TEVOKS® АРвПуг	TEVOKS® РвПуг	EPR insulation with reinforced polyethylene sheath and longitudinal sealing with water-blocking tapes	-
TEVOKS® АРвПу2гж	TEVOKS® РвПу2гж	EPR insulation, reinforced polyethylene sheath with double longitudinal and transverse sealing using water-blocking materials for the cable and conductors.	-
TEVOKS® АРвПу2г	TEVOKS® РвПу2г	EPR insulation, reinforced polyethylene sheath with double longitudinal sealing using water-blocking tapes	-
TEVOKS® АРвБШп	TEVOKS® РвБШп	EPR insulation, polyethylene protective hose, galvanized steel tape armour	-
TEVOKS® АРвБШпг	TEVOKS® РвБШпг	EPR insulation, polyethylene protective hose with longitudinal sealing using water-blocking tapes, galvanized steel tape armour	-
TEVOKS® АРвБаШп	TEVOKS® РвБаШп	EPR insulation, polyethylene protective hose, aluminium/aluminium alloy tape armour	-
TEVOKS® АРвБаШпг	TEVOKS® РвБаШпг	EPR insulation, polyethylene protective hose with longitudinal sealing using water-blocking tapes, aluminium/aluminium alloy tape armour	-

TABLE 1

CABLE TYPE		CABLE COMPONENTS	FIRE HAZARD CLASS
ALUMINIUM CONDUCTOR	COPPER CONDUCTOR		
TEVOKS® АРвКШп	TEVOKS® РвКШп	EPR insulation, polyethylene protective hose, round galvanized steel wire armour	-
TEVOKS® АРвКШпг	TEVOKS® РвКШпг	EPR insulation, polyethylene protective hose with longitudinal sealing using water-blocking tapes, round galvanized steel wire armour	-
TEVOKS® АРвКаШп	TEVOKS® РвКаШп	EPR insulation, polyethylene protective hose, round aluminium/aluminium alloy wire armour	-
TEVOKS® АРвКаШпг	TEVOKS® РвКаШпг	EPR insulation, polyethylene protective hose with longitudinal sealing using water-blocking tapes, round aluminium/aluminium alloy wire armour	-
TEVOKS® АРвАГШп	TEVOKS® РвАГШп	EPR insulation, polyethylene protective hose, corrugated aluminium tubing armour	-
TEVOKS® АРвВ	TEVOKS® РвВ	EPR insulation, polyvinyl chloride plastic compound sheath	О1.8.2.5.4
TEVOKS® АРвБШв	TEVOKS® РвБШв	EPR insulation, polyvinyl chloride plastic compound hose, galvanized steel tape armour	О1.8.2.5.4
TEVOKS® АРвБаШв	TEVOKS® РвБаШв	EPR insulation, polyvinyl chloride plastic compound hose, aluminium/aluminium alloy tape armour	О1.8.2.5.4
TEVOKS® АРвКШв	TEVOKS® РвКШв	EPR insulation, polyvinyl chloride plastic compound hose, galvanized steel tape armour	О1.8.2.5.4
TEVOKS® АРвКаШв	TEVOKS® РвКаШв	EPR insulation, polyvinyl chloride plastic compound hose, round aluminium/aluminium alloy wire armour	О1.8.2.5.4
TEVOKS® АРвАГШв	TEVOKS® РвАГШв	EPR insulation, polyvinyl chloride plastic compound hose, corrugated aluminium tubing armour	О1.8.2.5.4
TEVOKS® АРвВнг(А)	TEVOKS® РвВнг(А)	EPR insulation, flame-retardant polyvinyl chloride plastic compound sheath	П1б.8.2.5.4
TEVOKS® АРвБШвнг(А)	TEVOKS® РвБШвнг(А)	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose, galvanized steel tape armour	П1б.8.2.5.4
TEVOKS® АРвБаШвнг(А)	TEVOKS® РвБаШвнг(А)	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose, aluminium/aluminium alloy tape armour	П1б.8.2.5.4
TEVOKS® АРвКШвнг(А)	TEVOKS® РвКШвнг(А)	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose, round galvanized steel wire armour	П1б.8.2.5.4
TEVOKS® АРвКаШвнг(А)	TEVOKS® РвКаШвнг(А)	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose, round aluminium/ aluminium alloy wire armour	П1б.8.2.5.4
TEVOKS® АРвАГШвнг(А)	TEVOKS® РвАГШвнг(А)	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose, corrugated aluminium tubing armour	П1б.8.2.5.4

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TABLE 1

CABLE TYPE		CABLE COMPONENTS	FIRE HAZARD CLASS
ALUMINIUM CONDUCTOR	COPPER CONDUCTOR		
TEVOKS® АРвВнг(А)-LS	TEVOKS® РвВнг(А)-LS	EPR insulation, sheath of a low-fire-hazard polyvinyl chloride compound with low smoke and gas emission	П1б.8.2.2.2
TEVOKS® АРвБШвнг(А)-LS	TEVOKS® РвБШвнг(А)-LS	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose with low smoke and gas emission, galvanized steel tape armour	П1б.8.2.2.2
TEVOKS® АРвБаШвнг(А)-LS	TEVOKS® РвБаШвнг(А)-LS	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose with low smoke and gas emission, aluminium/aluminium alloy tape armour	П1б.8.2.2.2
TEVOKS® АРвКШвнг(А)-LS	TEVOKS® РвКШвнг(А)-LS	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose with low smoke and gas emission, round galvanized steel wire armour	П1б.8.2.2.2
TEVOKS® АРвКаШвнг(А)-LS	TEVOKS® РвКаШвнг(А)-LS	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose with low smoke and gas emission, round aluminium/aluminium alloy wire armour	П1б.8.2.2.2
TEVOKS® АРвАГШвнг(А)-LS	TEVOKS® РвАГШвнг(А)-LS	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose with low smoke and gas emission, corrugated aluminium tubing armour	П1б.8.2.2.2
TEVOKS® АРвПнг(А)-HF	TEVOKS® РвПнг(А)-HF	EPR insulation, halogen-free polymer compound sheath	П1б.8.1.2.1
TEVOKS® АРвБПнг(А)-HF	TEVOKS® РвБПнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, galvanized steel tape armour	П1б.8.1.2.1
TEVOKS® АРвБаПнг(А)-HF	TEVOKS® РвБаПнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, aluminium/aluminium alloy tape armour	П1б.8.1.2.1
TEVOKS® АРвКПнг(А)-HF	TEVOKS® РвКПнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, round galvanized steel wire armour	П1б.8.1.2.1
TEVOKS® АРвКаПнг(А)-HF	TEVOKS® РвКаПнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, round aluminium/aluminium alloy wire armour	П1б.8.1.2.1
TEVOKS® АРвАГПнг(А)-HF	TEVOKS® РвАГПнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, corrugated aluminium tubing armour	П1б.8.1.2.1
TEVOKS® АРвПМнг(А)-HF	TEVOKS® РвПМнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, frost-resistant	П1б.8.1.2.1
TEVOKS® КА9РвПМнг(А)-HF+	TEVOKS® К9РвПМнг(А)-HF+	EPR insulation, halogen-free polymer compound sheath with double longitudinal and transverse sealing using water-blocking materials, frost-resistant	П1б.8.1.2.1
TEVOKS® АРвБПМнг(А)-HF	TEVOKS® РвБПМнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, galvanized steel tape armour, frost-resistant	П1б.8.1.2.1
TEVOKS® АРвБаПМнг(А)-HF	TEVOKS® РвБаПМнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, aluminium/aluminium alloy tape armour, frost-resistant	П1б.8.1.2.1

TABLE 1

CABLE TYPE		CABLE COMPONENTS	FIRE HAZARD CLASS
ALUMINIUM CONDUCTOR	COPPER CONDUCTOR		
TEVOKS® АРвКПМнг(А)-HF	TEVOKS® РвКПМнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, round galvanized steel wire armour, frost-resistant	П16.8.1.2.1
TEVOKS® АРвКаПМнг(А)-HF	TEVOKS® РвКаПМнг(А)-HF	EPR insulation, halogen-free polymer compound sheath, round aluminium/aluminium alloy wire armour, frost-resistant	П16.8.1.2.1
TEVOKS® АРвКаПМнг(А)-HF+	TEVOKS® РвКаПМнг(А)-HF+	EPR insulation, halogen-free polymer compound sheath with double longitudinal and transverse sealing using water-blocking materials, round aluminium/aluminium alloy wire armour, frost-resistant	П16.8.1.2.1
TEVOKS® АРвАГПМнг(А)-HF	TEVOKS® РвАГПМнг(А)-HF	EPR insulation and sheath, halogen-free polymer compound sheath, corrugated aluminium tubing armour, frost-resistant	П16.8.1.2.1
TEVOKS® КА9РвАГПМнг(А)-HF+	TEVOKS® К9РвАГПМнг(А)-HF+	EPR insulation, halogen-free polymer compound sheath with double longitudinal and transverse sealing using water-blocking materials, corrugated aluminium tubing armour, frost-resistant	П16.8.1.2.1
-	TEVOKS® РвПнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, frost-resistant, thermal barrier of mica tape	П16.4.1.2.1
-	TEVOKS® РвБПнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, galvanized steel tape armour, thermal barrier of mica tape	П16.4.1.2.1
-	TEVOKS® РвБаПнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, aluminium/aluminium alloy tape armour, thermal barrier of mica tape	П16.4.1.2.1
-	TEVOKS® РвКПнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, round galvanized steel wire armour, thermal barrier of mica tape	П16.4.1.2.1
-	TEVOKS® РвКаПнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, round aluminium wire armour, thermal barrier of mica tape	П16.4.1.2.1
-	TEVOKS® РвАГПнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, corrugated aluminium tubing armour, thermal barrier of mica tape	П16.4.1.2.1
-	TEVOKS® РвПМнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, frost-resistant, thermal barrier of mica tape, frost-resistant	П16.4.1.2.1
-	TEVOKS® РвБПМнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, galvanized steel tape armour, thermal barrier of mica tape, frost-resistant	П16.4.1.2.1

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TABLE 1

CABLE TYPE		CABLE COMPONENTS	FIRE HAZARD CLASS
ALUMINIUM CONDUCTOR	COPPER CONDUCTOR		
-	TEVOKS® РвБаПМнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, aluminium/aluminium alloy tape armour, thermal barrier of mica tape, frost-resistant	П16.4.1.2.1
-	TEVOKS® РвКПМнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, round galvanized steel wire armour, thermal barrier of mica tape, frost-resistant	П16.4.1.2.1
-	TEVOKS® РвКаПМнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, round aluminium wire armour, thermal barrier of mica tape, frost-resistant	П16.4.1.2.1
-	TEVOKS® РвАГПМнг(А)-FRHF	EPR insulation, halogen-free polymer compound sheath, corrugated aluminium tubing armour, thermal barrier of mica tape, frost-resistant	П16.4.1.2.1
TEVOKS® АРвКаШвнг(А)-LS	TEVOKS® РвКаШвнг(А)-LS	EPR insulation, flame-retardant polyvinyl chloride plastic compound hose with low smoke and gas emission, round aluminium/aluminium alloy wire armour	П16.8.2.2.2

The cable rated voltage, number of conductors and their nominal cross-sectional area must meet Table 2.

TABLE 2

	CONDUCTOR TYPE	NOMINAL CONDUCTOR CROSS-SECTION, mm²				
		CABLE RATED VOLTAGE, kV				
		3 and 6	10	15	20	30 and 35
COPPER	For single-core cables					
	Solid	16 – 50	-			
	Stranded	16 – 1,000*	35 – 1,000*		50 – 1,000*	
	For three-core cables					
	Stranded round	16 – 400	35 – 400		50 – 400	
	Stranded sectoral	50 – 400	95 – 400		–	
ALUMINIUM	For single-core cables					
	Solid	16 – 240	–			
	Stranded	25 – 1,000*	35 – 1,000*		50 – 1,000*	
	For three-core cables					
	Solid round	16 – 240	–			
	Stranded round	25 – 400	35 – 400		50 – 400	
	Solid sector	25 – 240	95 – 240	120 – 400		–
	Stranded sectoral	25 – 400	95 – 400	–		

* Conductors with 1,000 mm² nominal cross-section may be manufactured of three, four or five consolidated sectors.

Test procedure and requirements

The cables are designed for use in AC power networks with an isolated or earthed neutral of categories A, B and C as per International Standard IEC 60183 ‘Guidelines for the selection of high-voltage cables’.

Single-core cables with armour of galvanized steel tape or galvanized steel wires are designed for use only in DC power networks.

Single-core cables with armour of aluminium/aluminium alloy round wires or tape, or with corrugated aluminium tubing armour are designed for use in AC power networks.

Single-core cables rated for 15 kV may be used in DC networks with max. 4 kV voltage.

RATED VOLTAGE	max. 35 kV
Ambient temperature during cable operation: - ХЛ cables, or polyethylene outer sheath cables, or frost-resistant cables	-50°C to +50°C -60°C to +50°C
Relative air humidity (at max. +35°C)	98%
Minimum cable laying temperature without preheating: - Cable or with a polyethylene outer sheath - Frost-resistant cables:	-15°C -20°C -35°C
Maximum continuously permissible operating temperature of cable conductors	105°C
Maximum permissible temperature of cable conductors under emergency conditions (overload conditions)	150°C
Maximum conductor temperature preventing the cable ignition during a short circuit	400°C
Maximum temperature of cable conductors during a short circuit	250°C
Maximum copper screen temperature during a short circuit	350°C
Maximum permissible tensile forces during cable pulling along the route must not exceed those calculated using the formula: $F = S \cdot \sigma,$ Where F is the permissible cable tensile force, N; S is the total cross-section of the cable conductors, mm^2; σ is the permissible stress, equal to 30 N/mm^2 for aluminium conductors and 50 N/mm^2 - for copper conductors	
Minimum permissible bending radius during installation: - Single-core cable - Multi-core cable Where D is the cable maximum outer diameter	 15 D 12 D
Cables may be bent to a minimum radius	7.5 D of the cable when installing cables using a special template

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After cable laying and installing fittings, it is recommended to test the cables at 2U0 alternating voltage at 50 Hz rated frequency for 60 minutes, or at U0 alternating voltage at 50 Hz rated frequency for 24 hours, or at 3U0 alternating voltage at 0.1 Hz rated frequency for 60 minutes.

The outer sheath of cables laid underground must be tested at 10 kV DC voltage for 1 minute. Apply the test voltage between the metal screen or armour and the earth electrode.

During operation, test 6–35 kV cable lines (hereinafter CL) one year after commissioning, and subsequently minimum once every 5 years, for CLs with no fault breakdowns or breakdowns during preventive tests during the first two years.

The permissible current loads for cables under normal operating conditions at 25°C ambient temperature for overhead installation and 15°C for underground installation.

Permissible current loads for single-core cables with copper and aluminium conductors, 6–15 kV

TABLE 3.1

NOMINAL CONDUCTOR CROSS-SECTION, mm²	PERMISSIBLE CURRENT LOADS FOR CABLES, A							
	FLAT FORMATION				TREFOIL FORMATION			
	COPPER CONDUCTORS		ALUMINIUM CONDUCTORS		COPPER CONDUCTORS		ALUMINIUM CONDUCTORS	
	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND
25	208	174	157	152	169	153	129	150
35	217	220	189	172	192	193	150	147
50	290	250	225	195	240	225	185	170
70	360	310	280	240	300	275	230	210
95	448	336	349	263	387	326	300	253
120	515	380	403	298	445	370	346	288
150	574	416	452	329	503	413	392	322
185	654	466	518	371	577	644	450	364

TABLE 3.1

NOMINAL CONDUCTOR CROSS-SECTION, mm²	PERMISSIBLE CURRENT LOADS FOR CABLES, A							
	FLAT FORMATION				TREFOIL FORMATION			
	COPPER CONDUCTORS		ALUMINIUM CONDUCTORS		COPPER CONDUCTORS		ALUMINIUM CONDUCTORS	
	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND
240	762	531	607	426	677	537	531	422
300	865	590	693	477	776	604	609	476
400	959	633	787	525	891	677	710	541
500	1,081	697	900	587	1,025	759	822	614
630	1,213	762	1,026	653	1,166	848	954	695
800	1,349	825	1,161	719	1,319	933	1,094	780
1,000	1,423	900	1,220	800	1,411	1,003	1,180	845

Permissible current loads for single-core cables with copper and aluminium conductors, 20–35 kV

TABLE 3.2

NOMINAL CONDUCTOR CROSS-SECTION, mm²	PERMISSIBLE CURRENT LOADS FOR CABLES, A							
	FLAT FORMATION				TREFOIL FORMATION			
	COPPER CONDUCTORS		ALUMINIUM CONDUCTORS		COPPER CONDUCTORS		ALUMINIUM CONDUCTORS	
	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND
50	290	230	225	185	250	225	190	175
70	365	290	280	225	310	270	240	215
95	446	336	348	263	389	326	301	253
120	513	380	402	298	448	371	348	288
150	573	417	451	330	507	413	394	322
185	652	466	516	371	580	466	452	365
240	760	532	605	426	680	538	533	422
300	863	582	690	477	779	605	611	476
400	957	635	783	526	895	678	712	541
500	1,081	700	897	588	1,027	762	824	615
630	1,213	766	1,023	655	1,172	851	953	699
800	1,351	830	1,159	722	1,325	942	1,096	782
1,000	1,430	906	1,230	805	1,415	1,007	1,186	850

Calculate the currents for flat formation cable laying based on a clear distance between cables equal to the cable diameter.

Permissible current loads for multi-core cables with copper and aluminium conductors, 6–35 kV

TABLE 3.3

NOMINAL CONDUCTOR CROSS-SECTION, mm²	PERMISSIBLE CURRENT LOADS FOR CABLES, A							
	6 – 15 kV VOLTAGE				FOR 20 – 35kV VOLTAGE			
	COPPER CONDUCTORS		ALUMINIUM CONDUCTORS		COPPER CONDUCTORS		ALUMINIUM CONDUCTORS	
	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND	ABOVE GROUND	UNDER GROUND
25	145	147	107	105	-	-	-	-
35	173	175	134	136	-	-	-	-
50	206	207	159	156	215	207	163	161
70	255	253	196	193	264	248	204	199
95	329	300	255	233	331	300	256	233
120	374	340	291	265	376	341	292	265
150	423	384	329	300	426	384	331	300
185	479	433	374	338	481	433	375	339
240	562	500	441	392	564	500	442	392
300	630	563	490	456	630	563	490	456
400	710	635	554	515	710	635	554	515

Calculate the permissible current loads for underground installation for the following design conditions: installation depth – 0.7 m; soil specific thermal resistance – 1.2 K·m/W; ambient temperature for aboveground installation +25°C; for underground installation +15°C

For other values of design ambient temperature, apply the correction factors specified in Table 4.

TABLE 4

INSTALLATION CONDITIONS	CORRECTION FACTORS AT AMBIENT TEMPERATURE, °C											
	-5	0	5	10	15	20	25	30	35	40	45	50
GROUND	1.13	1.1	1.06	1.03	1.0	0.97	0.93	0.89	0.86	0.82	0.77	0.73
AIR	1.21	1.18	1.14	1.11	1.07	1.04	1.0	0.96	0.92	0.88	0.83	0.78

The permissible one-second short-circuit currents for cables must not exceed those specified in Table 5.

TABLE 5

NOMINAL CONDUCTOR CROSS-SECTION, mm²	PERMISSIBLE ONE-SECOND SHORT-CIRCUIT CURRENT FOR CABLES, kA	
	COPPER CONDUCTORS	ALUMINIUM CONDUCTORS
16	2.19	1.43
25	3.51	2.32
35	5.0	3.3
50	7.15	4.7
70	10.0	6.6
95	13.6	8.9
120	17.2	11.3
150	21.5	14.2
185	26.5	17.5
240	34.3	22.7
300	42.9	28.2
400	57.2	37.6
500	71.5	47.0
630	90.1	59.2
800	114.4	75.2
1,000	142.9	94.5

The permissible one-second short-circuit currents in copper screens must not exceed those specified in Table 6.

TABLE 6

NOMINAL CROSS-SECTION OF COPPER SCREEN, MM	16	25	35	50	70	95	120	150	185	240
ONE-SECOND SHORT-CIRCUIT CURRENT, kA, MAX.	3.1	4.8	6.7	9.6	13.4	18.1	22.9	28.7	35.3	45.8

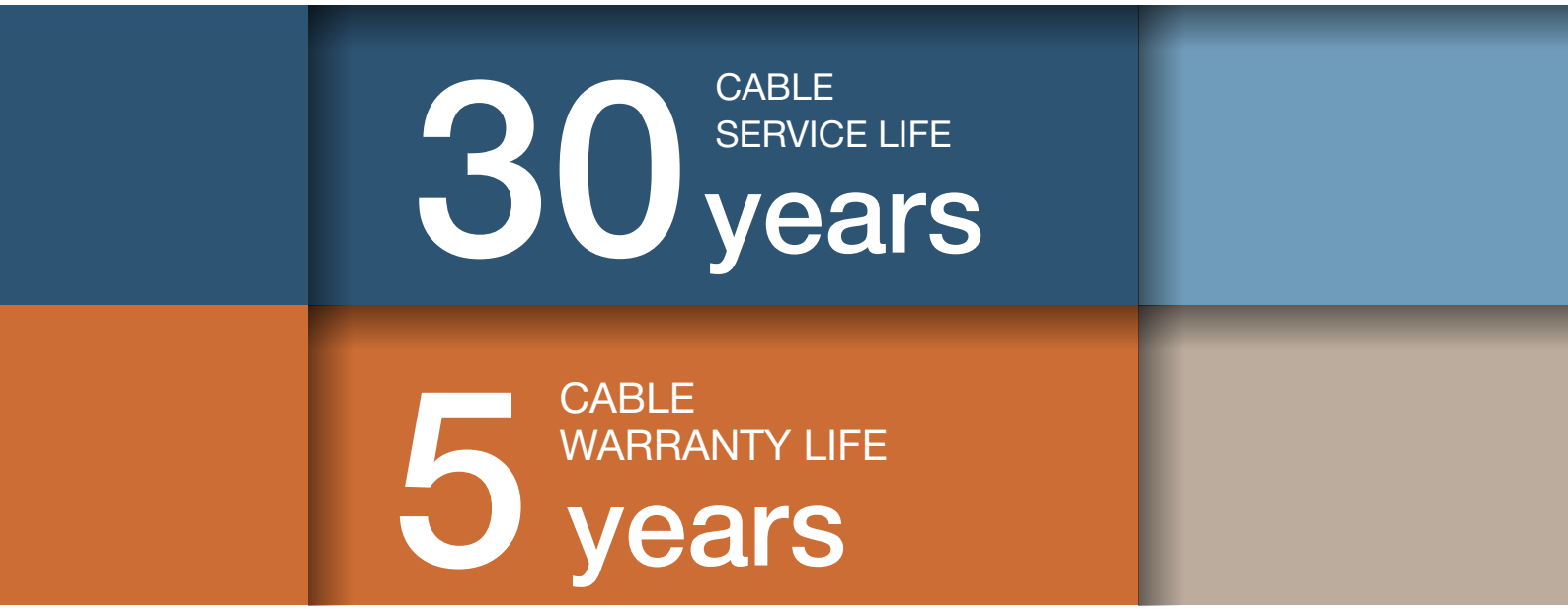
Calculate the short-circuit currents at 105 °C conductor temperature prior to the short circuit and max. 250°C conductor temperature during the short circuit.

If the short-circuit duration differs from 1 s, multiply the short-circuit current values in Table 5 and 6 by a correction factor **k**, calculated using the formula:

$$k = \frac{1}{\sqrt{T}}$$

Where T is the short circuit duration, seconds.

The maximum duration of the short circuit must not exceed 5 seconds.



CABLE JOINTS FOR TEVOKS Рв CABLES

Joints for TEVOKS Рв cable with EPR insulation, 10 kV max.

DESIGNATION	NUMBER OF CONDUCTORS	VOLTAGE	DESCRIPTION
Cable joint The MyFTA РКВТпНт-10	1, 3	6, 10 kV	Indoor terminating joints are designed for terminating unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РКНТпНт-10	1, 3	6, 10 kV	Outdoor terminating joints are designed for terminating unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РСТпт-10	1, 3	6, 10 kV	Connection cable joints are designed to connect unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РКВТпНбт-10	1, 3	6, 10 kV	Indoor terminating joints are designed for terminating EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РКНТпНбт-10	1, 3	6, 10 kV	Outdoor terminating joints are designed for terminating EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РСТпбт-10	1, 3	6, 10 kV	Connection cable joints are designed to connect EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РКВТпНткп-10	1, 3	6, 10 kV	Indoor terminating joints are designed for terminating EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.
Cable joint The MyFTA РКНТпНткп-10	1, 3	6, 10 kV	Outdoor terminating joints are designed for terminating EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.
Cable joint The MyFTA РСТпткп-10	1, 3	6, 10 kV	Connection cable joints are designed to connect EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.

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Joints for TEVOKS Рв cable with EPR insulation, 20 kV max.

DESIGNATION	NUMBER OF CONDUCTORS	VOLTAGE	DESCRIPTION
Cable joint The MyFTA РКВТпНт-20	1, 3	15, 20 kV	Indoor terminating joints are designed for terminating unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РКНТпНт-20	1, 3	15, 20 kV	Outdoor terminating joints are designed for terminating unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РСТпт-20	1, 3	15, 20 kV	Connection cable joints are designed to connect unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РКВТпНтб-20	1, 3	15, 20 kV	Indoor terminating joints are designed for terminating EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РКНТпНтб-20	1, 3	15, 20 kV	Outdoor terminating joints are designed for terminating EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РСТптб-20	1, 3	15, 20 kV	Connection cable joints are designed to connect EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РКВТпНткп-20	1, 3	15, 20 kV	Indoor terminating joints are designed for terminating EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.
Cable joint The MyFTA РКНТпНткп-20	1, 3	15, 20 kV	Outdoor terminating joints are designed for terminating EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.
Cable joint The MyFTA РСТпткп-20	1, 3	15, 20 kV	Connection cable joints are designed to connect EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.

Joints for TEVOKS Рв cable with EPR insulation, 20 kV max.

DESIGNATION	NUMBER OF CONDUCTORS	VOLTAGE	DESCRIPTION
Cable joint The MyFTA РКВТпНт-35	1, 3	35 kV	Indoor terminating joints are designed for terminating unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РКНТпНт-35	1, 3	35 kV	Outdoor terminating joints are designed for terminating unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РСТпт-35	1, 3	35 kV	Connection cable joints are designed to connect unarmoured EPR cables. Suitable for РвВ, АРвВ and similar cables
Cable joint The MyFTA РКВТпНтб-35	1, 3	35 kV	Indoor terminating joints are designed for terminating EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РКНТпНтб-35	1, 3	35 kV	Outdoor terminating joints are designed for terminating EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РСТптб-35	1, 3	35 kV	Connection cable joints are designed to connect EPR cables with tape armour. Suitable for АРвБШп, РвБаШв and similar cables.
Cable joint The MyFTA РКВТпНткп-35	1, 3	35 kV	Indoor terminating joints are designed for terminating EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.
Cable joint The MyFTA РКНТпНткп-35	1, 3	35 kV	Outdoor terminating joints are designed for terminating EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.
Cable joint The MyFTA РСТпткп-35	1, 3	35 kV	Connection cable joints are designed to connect EPR cables with wire armour. Suitable for РвКШв, АРвКаШв and similar cables.

нгLS Version is possible

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