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ПвЭВнгд-30 1х1200 ТУ У 31.3-00214534-017-2003

Power cables with copper conductors, flame-retardant, with XLPE, with PVC compound outer sheath and with low smoke and gas emission

For the cable of this mark correspond the foreign-made analogues:

ПвВнг(B)-LS (RU) • ПвВнг(A)-LS (RU)

Technical cable requirements correspond to IEC 60502-2

Cables are used for laying:

- in premises, tunnels, ducts, mines, dry soil and outdoor under shelter
- · in bunches
- at sites, where low smoke and gas emission are required (NPP, subway, large industrial facilities, high-rise buildings, etc.)

It is possible to manufacture cables with an integrated fiber-optic module.

Order entry example:

ПвЭВнгд-30 1х1200/70 (ОМ) ТУ У 31.3-00214534-017-2003

In conjunction with the DTS system, the integrated fiber-optic module can act as a distributed cable line temperature sensor.

It is possible to manufacture cable with sealed conductor.

Order entry example:

ПвЭВнгд-30 1х1200/70 (г) ТУ У 31.3-00214534-017-2003

Fire safety code in accordance with ДСТУ 4809:2007: ПБ132121000

Products of this mark meet the requirements:

- · single wire cable flame retardance
- bunched cable flame retardance category B
- toxicity class Tk2 of the combustion products of nonmetallic elements (toxicity index from 40 up to 120 g/m³)
- class $\upmu T$ K1 on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m²/kg)
- class ДΠκ2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)
- corrosive class $K\kappa 1$ of combustion products of non-metallic elements (the number of halogen hydrides less than 150 mg/g, pH less than 4.3, specific conductivity more than 10 μ S/mm)







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ПвЭВнгд-30 1x1200 ТУ У 31.3-00214534-017-2003

Power cables with copper conductors, flame-retardant, with XLPE, with PVC compound outer sheath and with low smoke and gas emission

TECHNICAL SPECIFICATIONS

Maximum voltagekV36Number and rated area of conductorsmm²1 x 1200Insulation thiknessmm8Minimum screen cross-sectionmm²70Permissible short circuit current across the screen of minimum cross-sectionkA14.2Maximum permissible short-circuit current in corekA172Permissible continious current rating * by aerial laying in trefoil formationA1505. by aerial flat layingA2088. by burial in trefoil formationA995. by burial flatA827Partial discharge factor for rated voltage, not more thanpC6Maximum permissible conductor temperature Continious°C+90. in emergency operation°C+130. at short circuit°C+250Operating temperature range (in climate version NF)°C-50 +50Operating temperature range (in climate version T)°C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the delivery on the drums ***# 309Д-130: **** 470 * 10.0	Rated voltage	kV	30
Insulation thikness mm 8 Minimum screen cross-section mm² 70 Permissible short circuit current across the screen of kA 14.2 minimum cross-section Maximum permissible short-circuit current in core kA 172 Permissible continious current rating * • by aerial laying in trefoil formation A 1505 • by aerial flat laying A 2088 • by burial in trefoil formation A 995 • by burial in trefoil formation A 827 Partial discharge factor for rated voltage, not more than pC 6 Maximum permissible conductor temperature • Continious °C +90 • in emergency operation °C +130 • at short circuit °C +250 Operating temperature range (in climate version NF) °C -50 +50 Operating temperature range (in climate version T) °C -25 +65 Minimum bending radius by laying mm 1296 Rated outer diameter of the cable (for reference) ** mm 81 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery m, t # 30УД-130: **** 470 • 10.0	Maximum voltage	kV	36
Minimum screen cross-section mm² 70 Permissible short circuit current across the screen of kA 14.2 minimum cross-section Maximum permissible short-circuit current in core kA 172 Permissible continious current rating *	Number and rated area of conductors	mm²	1 x 1200
Permissible short circuit current across the screen of minimum cross-section Maximum permissible short-circuit current in core kA 172 Permissible continious current rating *	Insulation thikness	mm	8
minimum cross-section Maximum permissible short-circuit current in core Permissible continious current rating * • by aerial laying in trefoil formation • by aerial flat laying • by burial in trefoil formation • by burial in trefoil formation • by burial flat A 995 • by burial flat A 827 Partial discharge factor for rated voltage, not more than pC 6 Maximum permissible conductor temperature • Continious • C +90 • in emergency operation • at short circuit • C +250 Operating temperature range (in climate version NF) Operating temperature range (in climate version T) Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 81 Cable weight (approximate) Rated factory cable length and gross weight of the delivery m, t #30УД-130: **** 470 • 10.0	Minimum screen cross-section	mm²	70
Maximum permissible short-circuit current in corekA172Permissible continious current rating *. by aerial laying in trefoil formationA1505. by aerial flat layingA2088. by burial in trefoil formationA995. by burial flatA827Partial discharge factor for rated voltage, not more thanpC6Maximum permissible conductor temperature. Continious° C+90. in emergency operation° C+130. at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 · 10.0	Permissible short circuit current across the screen of	kA	14.2
Permissible continious current rating * · by aerial laying in trefoil formation · by aerial flat laying · by burial in trefoil formation · by burial in trefoil formation · by burial flat A 995 · by burial flat Partial discharge factor for rated voltage, not more than pC 6 Maximum permissible conductor temperature · Continious · C +90 · in emergency operation · at short circuit Operating temperature range (in climate version NF) Operating temperature range (in climate version T) Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 81 Cable weight (approximate) Rated factory cable length and gross weight of the delivery m, t #30УД-130: **** 470 · 10.0	minimum cross-section		
• by aerial laying in trefoil formationA1505• by aerial flat layingA2088• by burial in trefoil formationA995• by burial flatA827Partial discharge factor for rated voltage, not more thanpC6Maximum permissible conductor temperature° C+90• Continious° C+130• in emergency operation° C+250• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 • 10.0	Maximum permissible short-circuit current in core	kA	172
 by aerial flat laying by burial in trefoil formation by burial flat A 995 by burial flat A 827 Partial discharge factor for rated voltage, not more than C 6 Maximum permissible conductor temperature Continious C +90 in emergency operation C +130 at short circuit C +250 Operating temperature range (in climate version NF) C -50 +50 Operating temperature range (in climate version T) C -25 +65 Minimum bending radius by laying mm 1296 Rated outer diameter of the cable (for reference) ** mm 81 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery m, t #30УД-130: **** 470 ⋅ 10.0 	Permissible continious current rating *		
 by burial in trefoil formation by burial flat Partial discharge factor for rated voltage, not more than pC Maximum permissible conductor temperature Continious in emergency operation at short circuit C +250 Operating temperature range (in climate version NF) C -50 +50 Operating temperature range (in climate version T) C -25 +65 Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 81 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery m, t #30УД-130: **** 470 · 10.0 	by aerial laying in trefoil formation	Α	1505
• by burial flatA827Partial discharge factor for rated voltage, not more thanpC6Maximum permissible conductor temperature• C+90• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 • 10.0	by aerial flat laying	Α	2088
Partial discharge factor for rated voltage, not more than pC Maximum permissible conductor temperature • Continious • in emergency operation • at short circuit Operating temperature range (in climate version NF) Operating temperature range (in climate version T) Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery pC +90 +90 +90 -130 *C +130 *C +250 -50 +50 *C -25 +65 mm 1296 ** Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** mm 81 Cable weight (approximate) Rated factory cable length and gross weight of the delivery m, t #30УД-130: **** 470 • 10.0	by burial in trefoil formation	Α	995
Maximum permissible conductor temperature°C+90• Continious°C+90• in emergency operation°C+130• at short circuit°C+250Operating temperature range (in climate version NF)°C-50 +50Operating temperature range (in climate version T)°C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 • 10.0	• by burial flat	Α	827
• Continious° C+90• in emergency operation° C+130• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 • 10.0	Partial discharge factor for rated voltage, not more than	рС	6
• in emergency operation°C+130• at short circuit°C+250Operating temperature range (in climate version NF)°C-50 +50Operating temperature range (in climate version T)°C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 · 10.0	Maximum permissible conductor temperature		
• at short circuit° C+250Operating temperature range (in climate version NF)° C-50 +50Operating temperature range (in climate version T)° C-25 +65Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 • 10.0	Continious	° C	+90
Operating temperature range (in climate version NF) Operating temperature range (in climate version T) C -50 +50 Operating temperature range (in climate version T) Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery m, t #30УД-130: **** 470 • 10.0	in emergency operation	° C	+130
Operating temperature range (in climate version T) Minimum bending radius by laying Rated outer diameter of the cable (for reference) ** Cable weight (approximate) Rated factory cable length and gross weight of the delivery **C	• at short circuit	° C	+250
Minimum bending radius by layingmm1296Rated outer diameter of the cable (for reference) **mm81Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 ⋅ 10.0	Operating temperature range (in climate version NF)	° C	-50 +50
Rated outer diameter of the cable (for reference) ** mm 81 Cable weight (approximate) kg/km 15210 Rated factory cable length and gross weight of the delivery m, t # 30УД-130: **** 470 • 10.0	Operating temperature range (in climate version T)	° C	-25 +65
Cable weight (approximate)kg/km15210Rated factory cable length and gross weight of the deliverym, t# 30УД-130: **** 470 • 10.0	Minimum bending radius by laying	mm	1296
Rated factory cable length and gross weight of the delivery m, t # 30УД-130: **** 470 • 10.0	Rated outer diameter of the cable (for reference) **	mm	81
	Cable weight (approximate)	kg/km	
on the drums ***	Rated factory cable length and gross weight of the delivery	m, t	# 30УД-130: **** 470 · 10.0
	on the drums ***		

Notes:

When ordering it is neccesary to agree the factory length of the product with the manufacturer

^{*} Long permissible current loads are calculated for the following conditions: conductor temperature 90 °C, air temperature 30 °C, soil temperature 20 °C, thermal resistivity of soil 1.5 °K • m/W, laying depth in the soil 0.8 m, while laying in flat formation the distance between cables in clear is equal to the cable diameter, while laying in trefoil formation cables are laid side by side, shields are earthed on both ends of the line

^{**} The external diameter may differ from the rated up to \pm 10 %

^{***} Отклонение фактической массы брутто от указанного значения может составлять \pm 7 %

^{****} Option delivery on not full drum



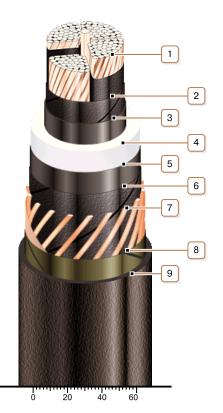




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CONSTRUCTION

- 1. Copper segmentary multiwire compact conductor Notes:
- It is possible to manufacture cable with sealed conductor.
- · Conductor segment twisting is not illustrated
- 2. Lapping layer of semiconductive swellable tape
- 3. Inner extruded semiconducting layer
- 4. XLPE insulation
- 5. Outer extruded semiconducting layer
- 6. Lapping layer of semiconductive swellable tape
- 7. Copper screen
- 8. Lapping layer of glass tape
- 9. Low fire-risk PVC compound outer sheath