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ПвЭВнгд-6 3x70 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-6 3х70/16 (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 conductors.

Order entry example:

ПвЭВнгд-6 3х70/16 (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 μ TK1 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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TECHNICAL SPECIFICATIONS

Rated voltage	kV	6
Maximum voltage	kV	7.2
Number and rated area of conductors	mm²	3 x 70
Insulation thikness	mm	2.5
Minimum screen cross-section	mm²	16
Permissible short circuit current across the screen of	kA	3.3
minimum cross-section		
Maximum permissible short-circuit current in core	kA	10
Permissible continious current rating *		
• by aerial laying	Α	253
• by burial	Α	221
Partial discharge factor for rated voltage, not more than	рС	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	768
Rated outer diameter of the cable (for reference) **	mm	48
Cable weight (approximate)	kg/km	3940
Rated factory cable length and gross weight of the delivery	m, t	# 18аУД-40: 710 • 3.3
on the drums ***		# 22УД-60: 814 • 4.1
		# 25УД-90: 1366 • 7.0

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, load factor 1.0, thermal resistivity of soil 1.5 °K • m/W, laying depth in the ground 0.8 m, shields are grounded at 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 $\pm\,7\,\%$







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CONSTRUCTION

- 1. Copper multiwire compact conductor
- Note: It is possible to manufacture cable with sealed conductors.
- 2. Inner extruded semiconducting layer
- 3. XLPE insulation
- 4. Outer extruded semiconducting layer
- 5. Lapping layer of semiconductive swellable tape
- 6. Copper screen
- 7. Low fire-risk PVC compound outer sheath

Note: Conductor twisting is not illustrated