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# ПвЭогВнгд-30 3х150 ТУ У 31.3-00214534-017-2003

Three-core power cables with copper conductors, flame-retardant, with XLPE, collective screen, with longitudinal sealing and PVC compound outer sheath and with low smoke and gas emission

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: ПвЭогВнгд-30 3x150/50 (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:

ПвЭогВнгд-30 3х150/50 (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/m<sup>3</sup>)

• class  $\[mu]T\kappa 1$  on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m<sup>2</sup>/kg)

• class ДПк2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)

• corrosive class Kx1 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  $\mu$ S/mm)





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### **TECHNICAL SPECIFICATIONS**

Data da alta a	1.1.4	00
Rated voltage	kV	30
Maximum voltage	kV	36
Number and rated area of conductors	mm²	3 x 150
Insulation thikness	mm	8
Minimum screen cross-section	mm²	50
Permissible short circuit current across the screen of	kA	10.2
minimum cross-section		
Maximum permissible short-circuit current in core	kA	21.5
Permissible continious current rating *		
• by aerial laying	А	398
• by burial	А	334
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	1440
Rated outer diameter of the cable (for reference) **	mm	90
Cable weight (approximate)	kg/km	10260
Rated factory cable length and gross weight of the delivery	m, t	# 25УД-90: 396 • 5.6
on the drums ***		# 26УД-100: 457 • 6.5
		# 30УД-130: **** 696 • 10.0

#### 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 %

\*\*\*\* Option delivery on not full drum



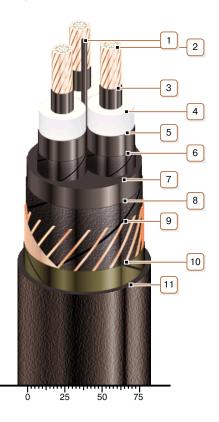


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### CONSTRUCTION

1. Central polyethylene bundle

2. Copper multiwire compact conductor Note: It is possible to manufacture cable with sealed conductors.

- 3. Inner extruded semiconducting layer
- 4. XLPE insulation
- 5. Outer extruded semiconducting layer
- 6. Lapping layer of semiconductive swellable tape
- 7. Extruded filling of semiconducting polyethylene
- 8. Lapping layer of semiconductive swellable tape
- 9. Copper screen
- 10. Lapping layer of glass tape
- 11. Low fire-risk PVC compound outer sheath

Note: Conductor twisting is not illustrated