106701-200030000300

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ПвЕВнгд(к)-20 3х300
ТУ У 31.3-00214534-017-2003

Three core power cables with copper conductors, XLPE-insulated, core-filled with bundles, with outer sheath of PVC compound, flame retardant, 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:
ПвЕВнгд(к)-20 3х300/25 (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:
ПвЕВнгд(к)-20 3х300/25 (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 Тк2 of the combustion products of nonmetallic elements (toxicity index from 40 up to 120 g/m^3)*
- *class ДТк1 on smoke-forming ability by smouldering of non-metallic elements (coefficient of smoke formation from 50 to 500 m^2/kg)*
- *class ДПк2 on smoke-forming ability by combustion (minimum luminous flux more than 60 %)*
- *corrosive class Кк1 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 μS/mm)*

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TECHNICAL SPECIFICATIONS

Rated voltage	kV	20
Maximum voltage	kV	24
Number and rated area of conductors	mm^2	3 x 300
Insulation thikness	mm	5.5
Minimum screen cross-section	mm^2	25
Permissible short circuit current across the screen of minimum cross-section	kA	5.1
Maximum permissible short-circuit current in core	kA	42.9
Permissible continious current rating *		
• *by aerial laying*	A	475
• *by burial*	A	384
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	1360
Rated outer diameter of the cable (for reference) **	mm	85
Cable weight (approximate)	kg/km	12530
Rated factory cable length and gross weight of the delivery on the drums ***	m, t	# 25УД-90: 420 • 6.8 # 26УД-100: 604 • 9.4 # 30УД-130: **** 570 • 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 ± 10 %*

**** Отклонение фактической массы брутто от указанного значения может составлять ± 7 %*

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

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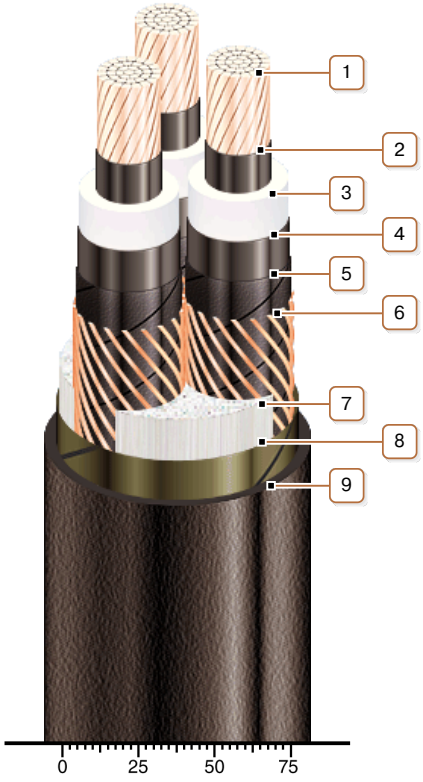
ТУ У 31.3-00214534-017-2003

Three core power cables with copper conductors, XLPE-insulated, core-filled with bundles, with outer sheath of PVC compound, flame retardant, with low smoke and gas emission



CONSTRUCTION

1. *Copper multiwire compact conductor*
2. *Inner extruded semiconducting layer*
3. *XLPE insulation*
4. *Outer extruded semiconducting layer*
5. *Lapping layer of semiconductive swellable tape*
6. *Copper screen*
   Note: It is possible to manufacture a cable with a fiber optic module built into the screen, including as a DTS system sensor
7. *Interstitial filler with polypropylene bundles*
8. *Lapping layer of glass tape*
9. *Low fire-risk PVC compound outer sheath*

Note: Conductor twisting is not illustrated

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