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180130-150500100000

ПвБВнгд-FR 5х50-1
ТУ У 31.3-00214534-055:2006

Fire-resistant power cables with copper conductors, XLPE-insulated, galvanized steel-tape armoured, with low fire-risk PVC-compound outer sheath

Cables are used for laying:
- *in bunches*
- *in premises, dry ducts and tunnels, in corrosive environment*
- *in places, where small mechanical impacts on cable are possible, including tensile forces*
- *in bunches, in crowded places*
- *power supply cable lines of NPP safety system equipment, circuits wiring of fire safety systems (fire alarm circuits, power supply of fire-fighting pumps, lightning of emergency exits and evacuation routes, smoke exhaust and blowing ventilation systems, evacuation elevators); for wiring in hospital surgical wings, emergency and equipment (current collectors) power supply circuits, operating in a fire emergency*

Manufacturing of cable with multiwire conductors is possible
Manufacturing of extruded fire-resistant barrier is possible

Fire safety code in accordance with ДСТУ 4809:2007: ПБ123121080
Products of this mark meet the requirements:
- *single wire cable flame retardance*
- *bunched cable flame retardance category А*
- *toxicity class Тк3 of the combustion products of nonmetallic elements (toxicity index over 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)*
- *flame-resistant class FE180 under fire conditions with a temperature not less than 750 °C*

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YUZHCABLE
PRODUCTION GUIDE

180130-150500100000

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ПвБВнгд-FR 5х50-1
ТУ У 31.3-00214534-055:2006

Fire-resistant power cables with copper conductors, XLPE-insulated, galvanized steel-tape armoured, with low fire-risk PVC-compound outer sheath

TECHNICAL SPECIFICATIONS

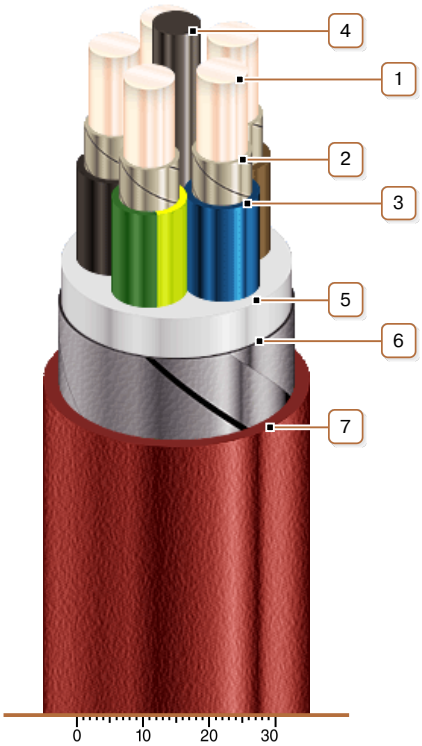
Rated voltage	kV	1
Number and rated area of conductors	mm^2	5 x 50
Phase insulation thikness	mm	1
Permissible continious current rating (AC of industrial frequency) *		
• *by aerial laying*	A	194
• *by burial*	A	190
Maximum permissible conductor temperature		
• *Continious*	˚C	+90
• *in emergency operation*	˚C	+130
• *at short circuit*	˚C	+250
Operating temperature range	˚C	-50 ... +50
Minimum bending radius by laying	mm	300
Rated outer diameter of the cable (for reference) **	mm	40
Cable weight (approximate)	kg/km	3450
Rated factory cable length and gross weight of the delivery on the drums ***	m, t	# 16a: 630 • 2.4 # 18: 720 • 2.9 # 20: 1160 • 4.6

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: air temperature plus 25 ˚C, soil temperature plus 15 ˚C, thermal resistivity of soil 1.2 ˚K•m/W, laying depth in the soil 0.7 m*

*** The external diameter may differ from the rated up to ± 10 %*



CONSTRUCTION

1. *Copper conductor*
2. *Fire-resistant barrier*
   Note: Manufacturing of extruded fire-resistant barrier is possible
3. *XLPE insulation*
4. *Low fire-risk PVC-compound bundle*
5. *Low fire-risk PVC-compound inner sheath*
6. *Double galvanized steel-tape armour*
7. *Low fire-risk PVC compound outer sheath*

Note: Conductor twisting is not illustrated

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