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ПвБбПнг-FRHF 5x50-1 ТУ У 31.3-00214534-069:2011

Fire-resistant power cables with copper conductors, XLPE-insulated, galvanized steel-tape armoured, with polymer compound outer sheath, flame-retardant, halogen-free

Cables are used for laying:

• in places, where small mechanical impacts on cable are possible, including tensile forces

• power supply cable lines of NPP electric equipment, wiring in office premises , which are computerized and intelligent, in kindergartens, schools, hospitals and for cable lines of spectating complexes and sport structures

• 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: ΠБ123122580 Products of this mark meet the requirements:

• single wire cable flame retardance

• bunched cable flame retardance category A

• toxicity class Tk3 of the combustion products of nonmetallic elements (toxicity index over 120 g/m^3)

• class $\[mu]T\kappa 1$ 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 Kk2 of combustion products of non-metallic elements (the number of halogen hydrides less than 150 mg/g, pH more than 4.3, specific conductivity less than 10 μ S/mm)

• flame-resistant class Ex90 under fire conditions at standard temperature conditions ДСТУ Б В.1.1-4

• flame-resistant class FE180 under fire conditions with a temperature not less than 750 °C





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TECHNICAL SPECIFICATIONS

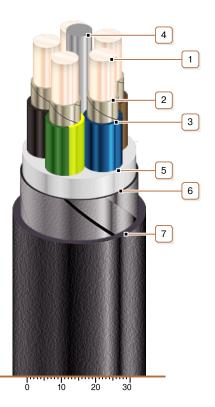
| Rated voltage | kV | 1 |
|--|-------|------------------|
| Number and rated area of conductors | mm² | 5 x 50 |
| Phase insulation thikness | mm | 1 |
| Permissible continious current rating (AC of industrial frequency) | * | |
| • by aerial laying | А | 194 |
| Maximum permissible conductor temperature | | |
| 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 | 292.5 |
| Rated outer diameter of the cable (for reference) ** | mm | 39 |
| Cable weight (approximate) | kg/km | 3520 |
| Rated factory cable length and gross weight of the delivery | m, t | # 16a: 630 • 2.5 |
| on the drums *** | | # 18: 720 • 3.0 |
| 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: 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 \pm 10 %



CONSTRUCTION

- 1. Copper conductor
- 2. Fire-resistant barrier

Note: Manufacturing of extruded fire-resistant barrier is possible

3. XLPE insulation

- 4. PVC compound bundle
- 5. Halogen-free polymer compound inner sheath
- 6. Double galvanized steel-tape armour
- 7. Polymer compound outer sheath:flame-retardant and halogen-free

Note: Conductor twisting is not illustrated