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ПвБВнгд-FR 4x4-1 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 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 A
- toxicity class Tk3 of the combustion products of nonmetallic elements (toxicity index over 120 g/m³)
- class $\Pi T \kappa 1$ 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 K κ 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)
- flame-resistant class FE180 under fire conditions with a temperature not less than 750 °C







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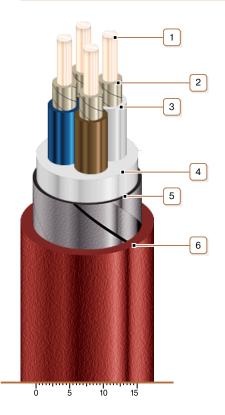
TECHNICAL SPECIFICATIONS

| Rated voltage | kV | 1 |
|---|-------|------------------|
| Number and rated area of conductors | mm² | 4 x 4 |
| Phase insulation thikness | mm | 0.7 |
| Permissible continious current rating (AC of industrial frequence | cy) * | |
| by aerial laying | Α | 41 |
| • by burial | Α | 48 |
| 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 | 165 |
| Rated outer diameter of the cable (for reference) ** | mm | 22 |
| Cable weight (approximate) | kg/km | 560 |
| Rated factory cable length and gross weight of the delivery | m, t | # 14: 1300 • 0.9 |
| on the drums *** | | |

Notes:

When ordering it is neccesary to agree the factory length of the product with the manufacturer

^{**} 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. Low fire-risk PVC-compound inner sheath
- 5. Double galvanized steel-tape armour
- 6. Low fire-risk PVC compound outer sheath

Note: Conductor twisting is not illustrated

^{*} Long permissible current loads are calculated during operation in four-wire networks with load in all the conductors 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