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## ПвВГнгд-FR 3x95+1x50-1 ТУ У 31.3-00214534-055:2006

Fire resistant power cables with copper conductors, XLPE-insulated, 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 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 additional multiwire conductor is possible Manufacturing of extruded fire-resistant barrier is possible

Fire safety code in accordance with ДСТУ 4809:2007:  $\Pi E 123121080$ 

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  $\protect\ensuremath{\mathsf{ATK1}}$  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 $\kappa$ 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  $\mu$ S/mm)
- flame-resistant class FE180 under fire conditions with a temperature not less than 750 °C







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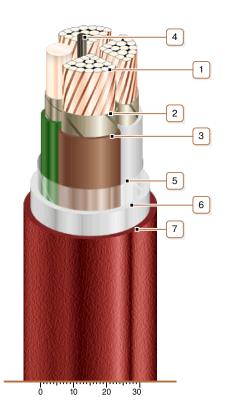
### **TECHNICAL SPECIFICATIONS**

| Rated voltage  | kV    | 1                |
|--|-------|------------------|
| Number and rated area of conductors                                | mm²   | 3 x 95 + 1 x 50  |
| Phase insulation thikness  | mm    | 1.1              |
| Permissible continious current rating (AC of industrial frequency) | +     |                  |
| by aerial laying   | Α     | 327              |
| • by burial  | Α     | 304              |
| 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    | 322.5            |
| Rated outer diameter of the cable (for reference) **               | mm    | 43               |
| Cable weight (approximate)   | kg/km | 3970             |
| Rated factory cable length and gross weight of the delivery        | m, t  | # 16a: 520 • 2.3 |
| on the drums ***   |       | # 18: 600 • 2.8  |
|  |       | # 20: 960 • 4.5  |
|  |       |                  |

#### Notes:

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

<sup>\*\*</sup> The external diameter may differ from the rated up to  $\pm$  10 %



#### CONSTRUCTION

- 1. Copper multiwire compact 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. PET film winding
- 6. Low fire-risk PVC-compound inner sheath
- 7. Low fire-risk PVC compound outer sheath

Note: Conductor twisting is not illustrated

<sup>\*</sup> 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